

Seasonal Wind Roses
For
Ontario

Report WR-79-4
Fall

Air Quality and Meteorology Section
Air Resources Branch
Ontario Ministry of the Environment
June 1979

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Report WR-79-4
Fall

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In this report we present Fall wind roses for Ontario wind stations based on data collected by the Atmospheric Environment Service of Environment Canada and the Air Resources Branch of Environment Ontario. These are soon to be supplemented by statistics from wind stations operated by Ontario Hydro.

The report also shows unbiased wind roses where it was felt to be appropriate.

Publications used in compiling these wind roses include:

1. Air Resources Branch, Wind Data Files, 1970-1977.
2. Atmospheric Environment Service, Canadian Normals, Vol. 3, Wind, 1955-1972.
3. Meteorological Branch, Dept. of Transport, Climatic Summaries for Selected Meteorological Stations in Canada, Vol. 11 (revised), 1959.
4. Meteorological Branch, Dept. of Transport, Climatic Summaries for Selected Meteorological Stations Vol. 11, 1948.

How to use this report

1. To locate the Fall wind rose for a given location find that location in the List of Stations (Table 1), then refer to the appropriate page number.
2. To determine a Fall wind rose for an area of interest, find the nearest wind stations from the Map of Wind Stations (Figure 1), then refer to the given page numbers.
3. Unbiased Fall wind roses (See publication WR-78-1A) are provided when observer bias has occurred.

Table 1

LIST OF WIND STATIONS

Page	
1.	Allanburg
2.	Armstrong
3.	Atikokan
4.	Camp Borden
5.	Caribou Island
6.	Cartier
7.	Centralia
8.	Chalk River
9.	Chapleau
10.	Cobourg
11.	Cochrane
12.	Cornwall (ARB)
13.	Cornwall (Ontario Hydro)
14.	Courtright (Level 1)
15.	Courtright (Level 2)
16.	Courtright (Level 3)
17.	Cove Island
18.	Delhi
19.	Douglas Point
20.	Earlton
21.	Etobicoke (Level 1)
22.	Etobicoke (Level 2)
23.	Etobicoke (Level 3)
24.	Fergus Shand Dam
25.	Geraldton
26.	Gore Bay
27.	Graham
28.	Great Duck Island
29.	Guelph
30.	Haileybury
31.	Hamilton (Marine Police)
32.	Hamilton (RBG)
33.	Hamilton (ARB) (Level 1)
34.	Hamilton (ARB) (Level 2)

Page

35.	Kapuskasing
36.	Kenora
37.	Killaloe
38.	Kingston
39.	Landsdowne House
40.	London (Crumlin)
41.	London (Lambeth)
42.	Long Point
43.	Main Duck Island
44.	Moosonee
45.	Mount Forest
46.	Muskoka
47.	Nagagami
48.	Nakina
49.	Niagara Falls (ARB)
50.	Niagara Falls (Grass Island)
51.	North Bay
52.	Oak Ridges
53.	Ottawa (Int'l A)
54.	Ottawa (NRC)
55.	Ottawa (Rockcliffe)
56.	Pagwa
57.	Paisley
58.	Parry Sound
59.	Petawawa
60.	Pickle Lake
61.	Porquis Junction
62.	Port Colborne Light
63.	Pt. Maitland
64.	Red Lake
65.	St. Thomas
66.	Sarnia

Page

67. Sarnia (Polysar)
68. Sault Ste. Marie
69. Scarborough (ARB) (Level 1)
70. Scarborough (ARB) (Level 2)
71. Scarborough (ARB) (Oliver Mowatt P.S.)
72. Simcoe
73. Sioux Lookout
74. Slate Island
75. Southampton
76. South Baymouth
77. St. Catharines
78. Sterling
79. Stormness
80. Sudbury (A)
81. Sudbury Ash St.
82. Sudbury (ARB) (Level 1)
83. Sudbury (ARB) (Level 3)
84. Thunder Bay
85. Timmins
86. Toronto (ARB) (Bruce P.S.)
87. Toronto (Downsview)
88. Toronto (Int'l A)
89. Toronto (Agincourt)
90. Toronto Island (A) (ARB)
91. Toronto Island (A) (AES)
92. Trenton
93. Trout Lake
94. Vineland
95. Wawa
96. Welland
97. White River
98. Wiarton
99. Windsor (A)

Page

- 100. Windsor (ARB) (Level 1)
- 101. Windsor ARB) (Level 2)
- 102. Windsor (ARB) (Level 1) (Riverside Drive)
- 103. Windsor (ARB) (Level 2) (Riverside Drive)
- 104. Winisk

Ontario Hydro Stations

- 105. R.L. Hearn
- 106. J.C. Keith
- 107. Lakeview G.S.
- 108. Lambton G.S.
- 109. Lennox G.S.
- 110. Nanticoke G.S.
- 111. Thunder Bay G.S.

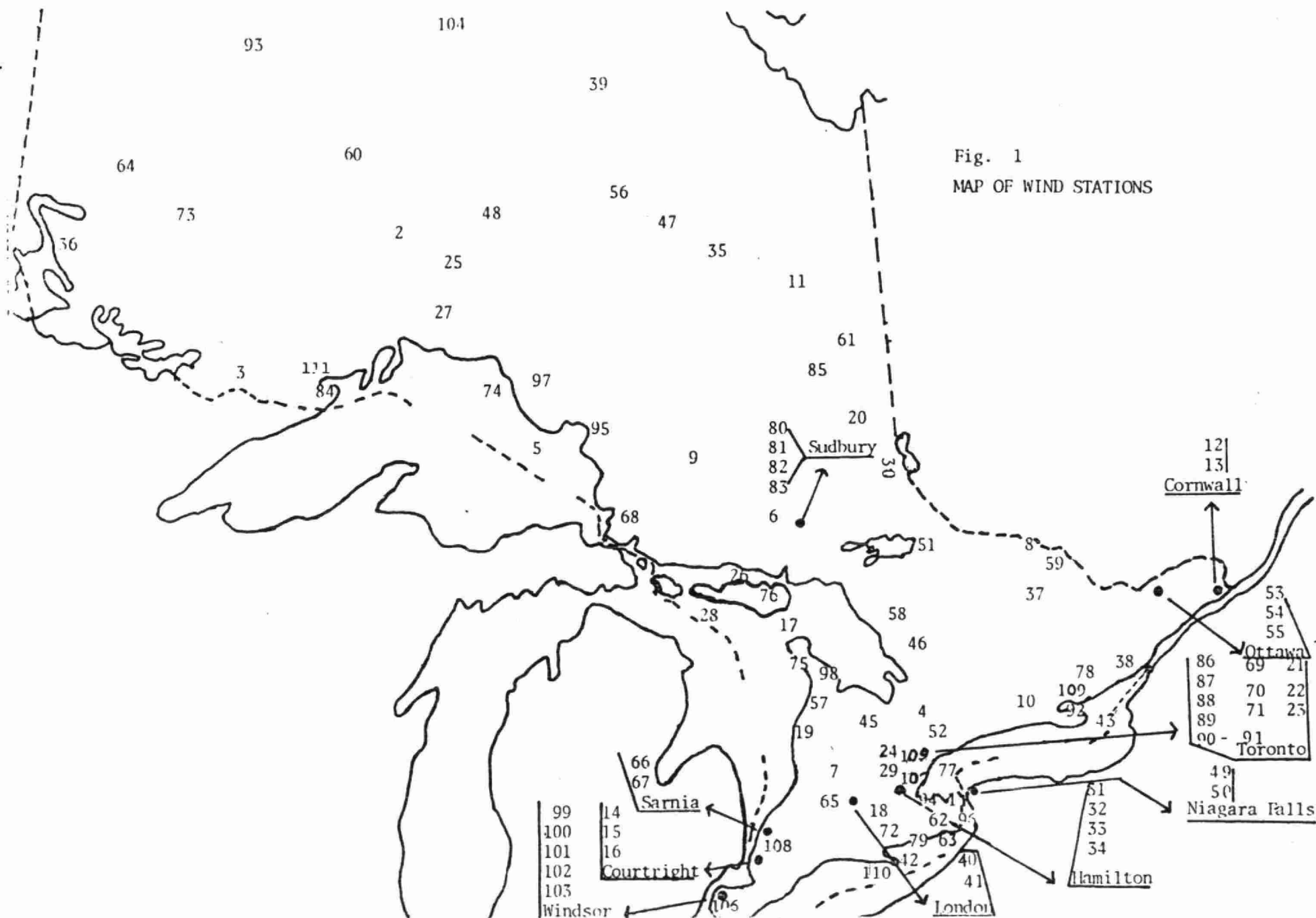


Fig. 1
MAP OF WIND STATIONS

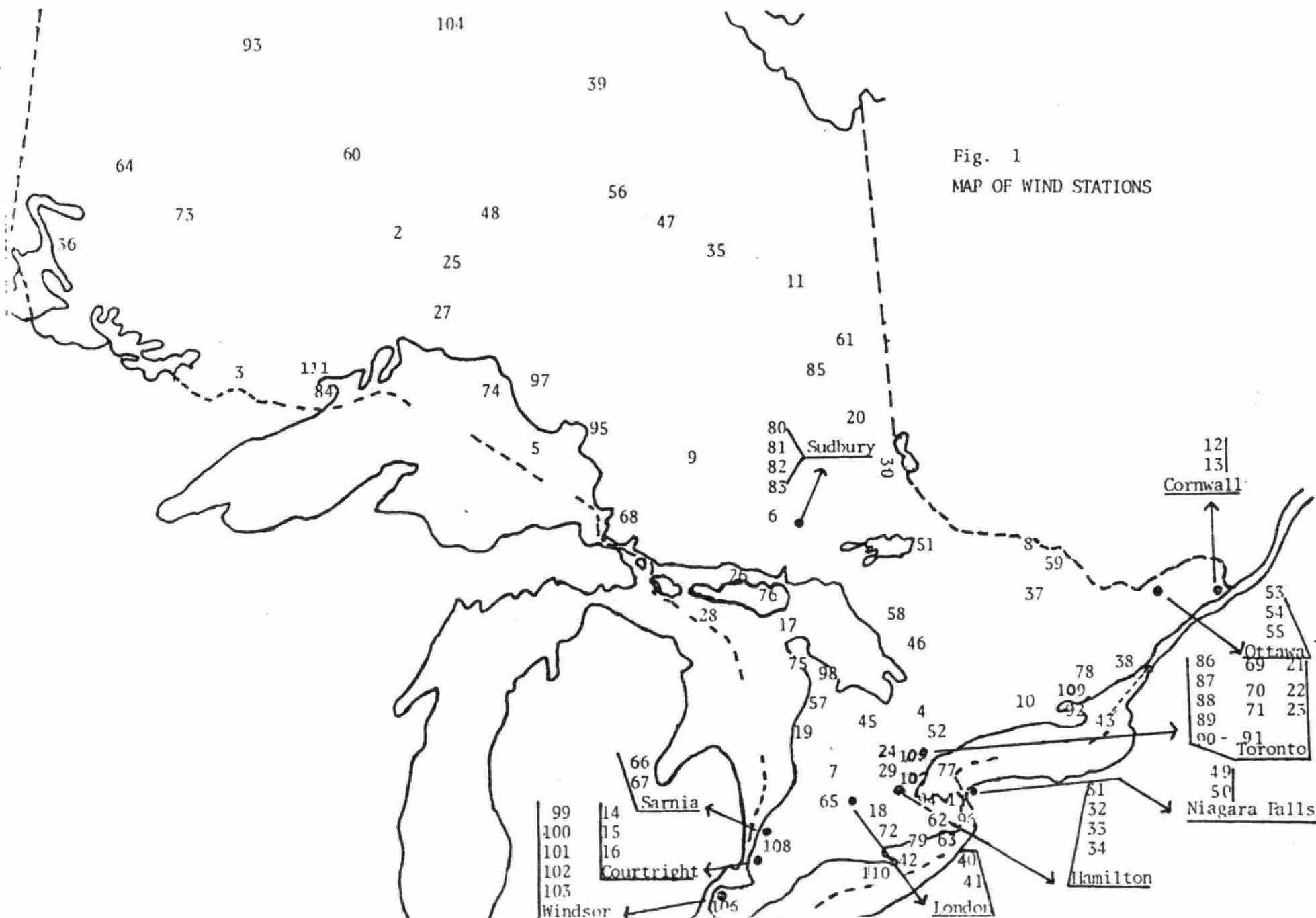
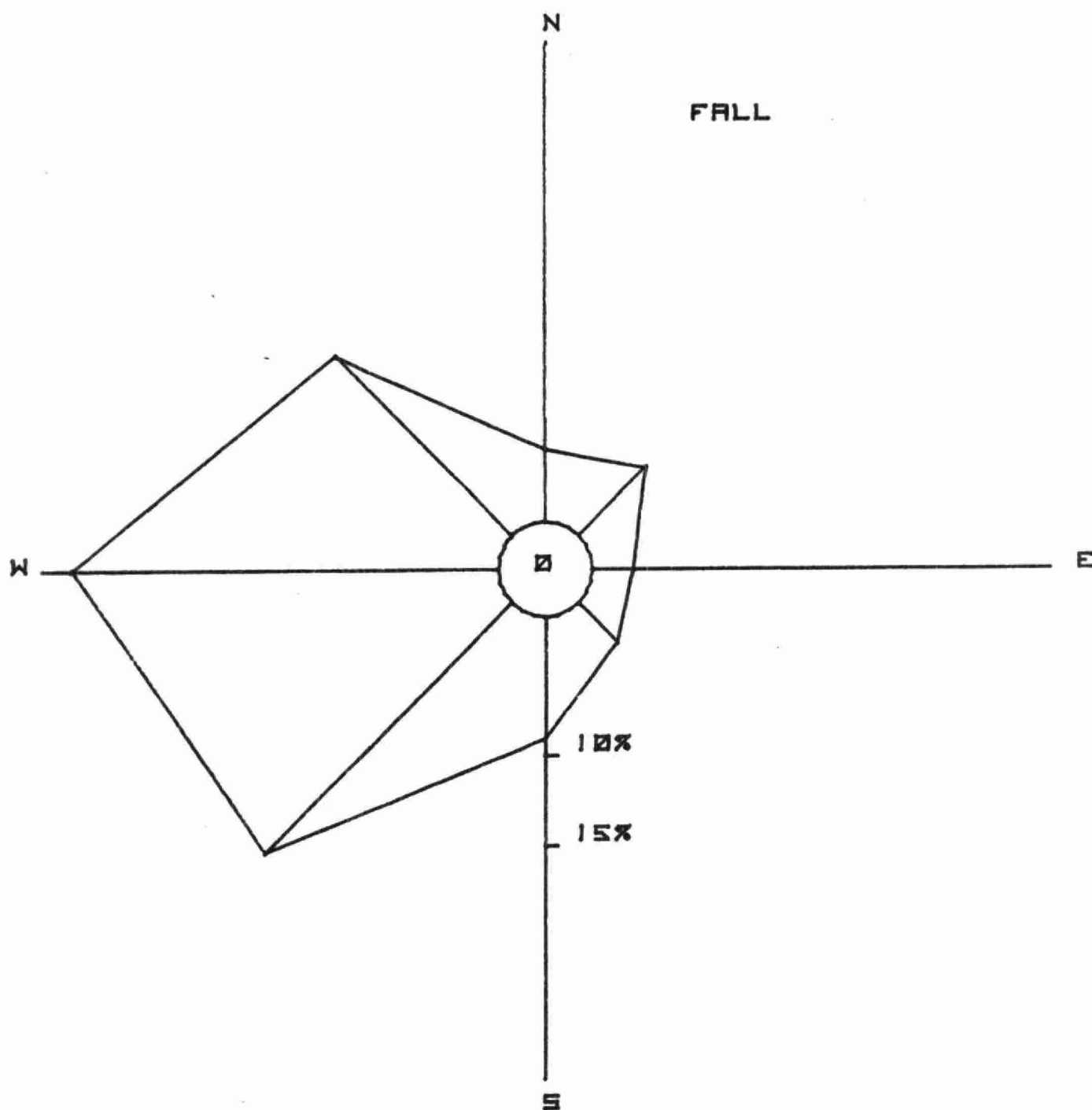


Fig. 1
MAP OF WIND STATIONS

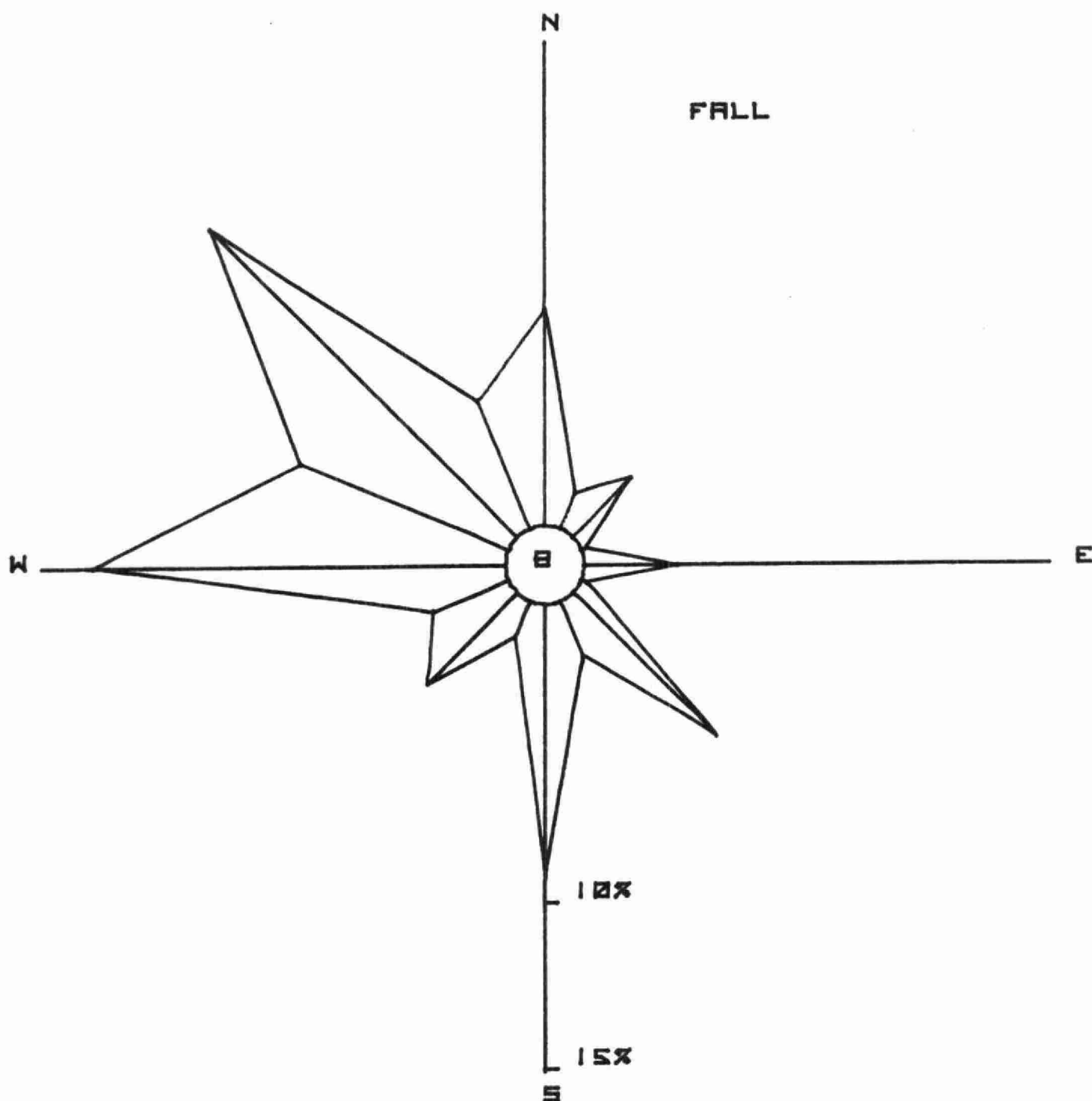


STATION INFORMATION

LOCATED
AT TRANSFORMER STN OFF
HWY 58, S OF ALLANBURG
HEIGHT 36.9M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	0	0	0	0	22	27	17	0



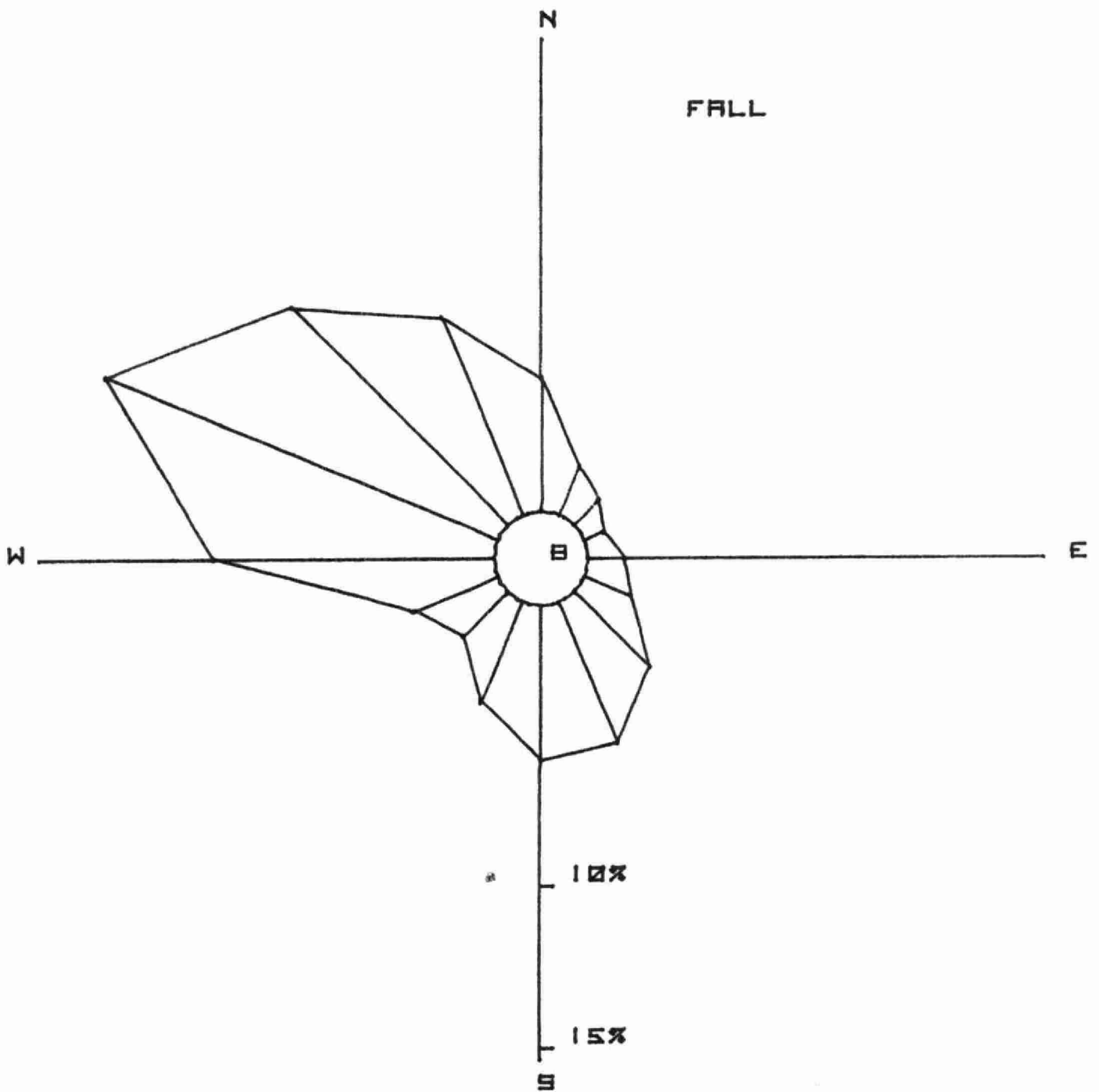
STATION INFORMATION

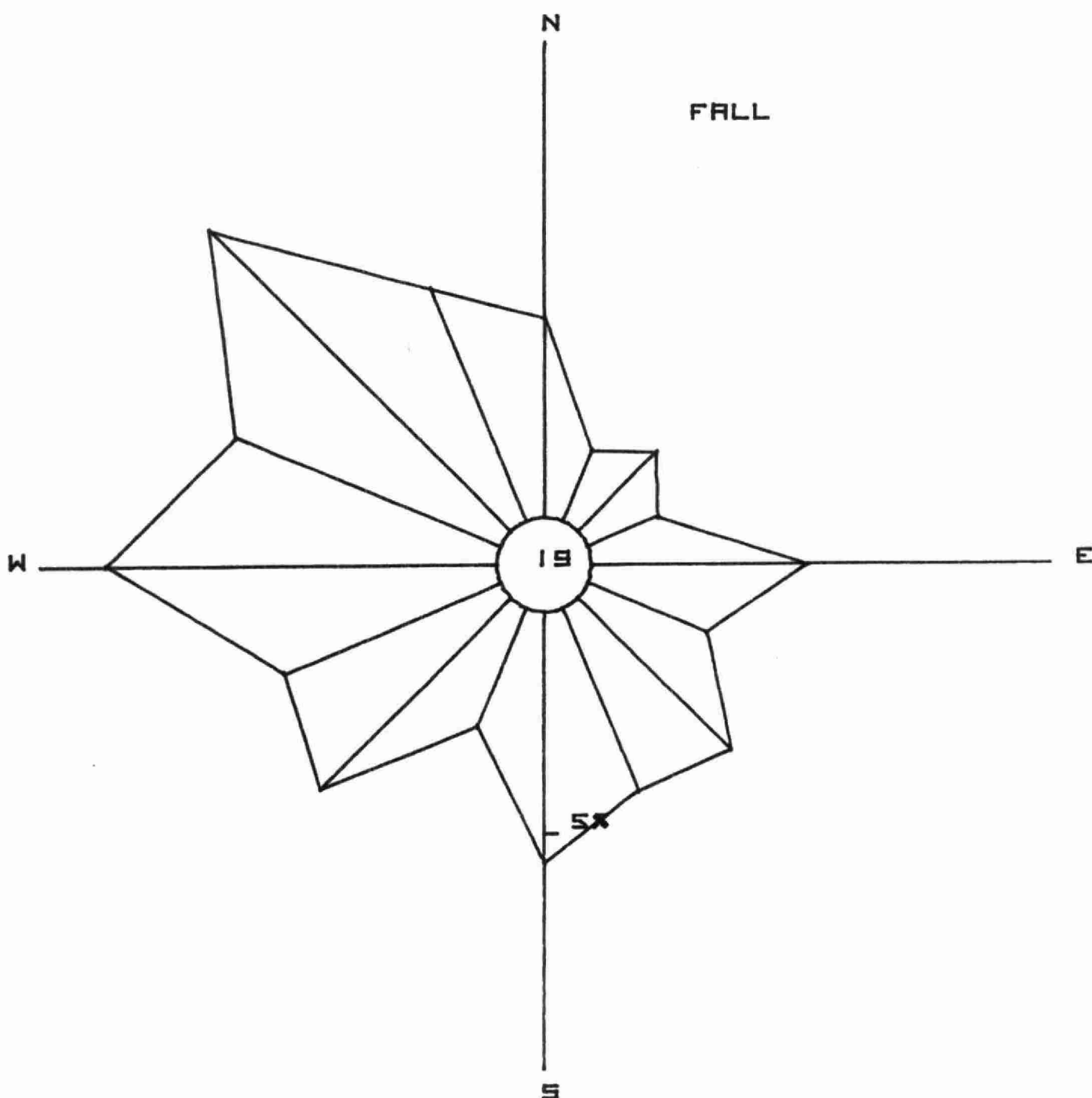
LOCATED 11.6KM E OF TOWN AT AIRPORT
 AREA WOODED WITH MANY LAKES AND
 HILLS 1.6-3.2 KM W THRU SSE
 HEIGHT 25.2M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
2	2	4	1	4	1	7	3	8	2	5	4	14	8	14	5	8

ARMSTRONG (A) (AES) 1955-1968
(BIASES REMOVED)





STATION INFORMATION

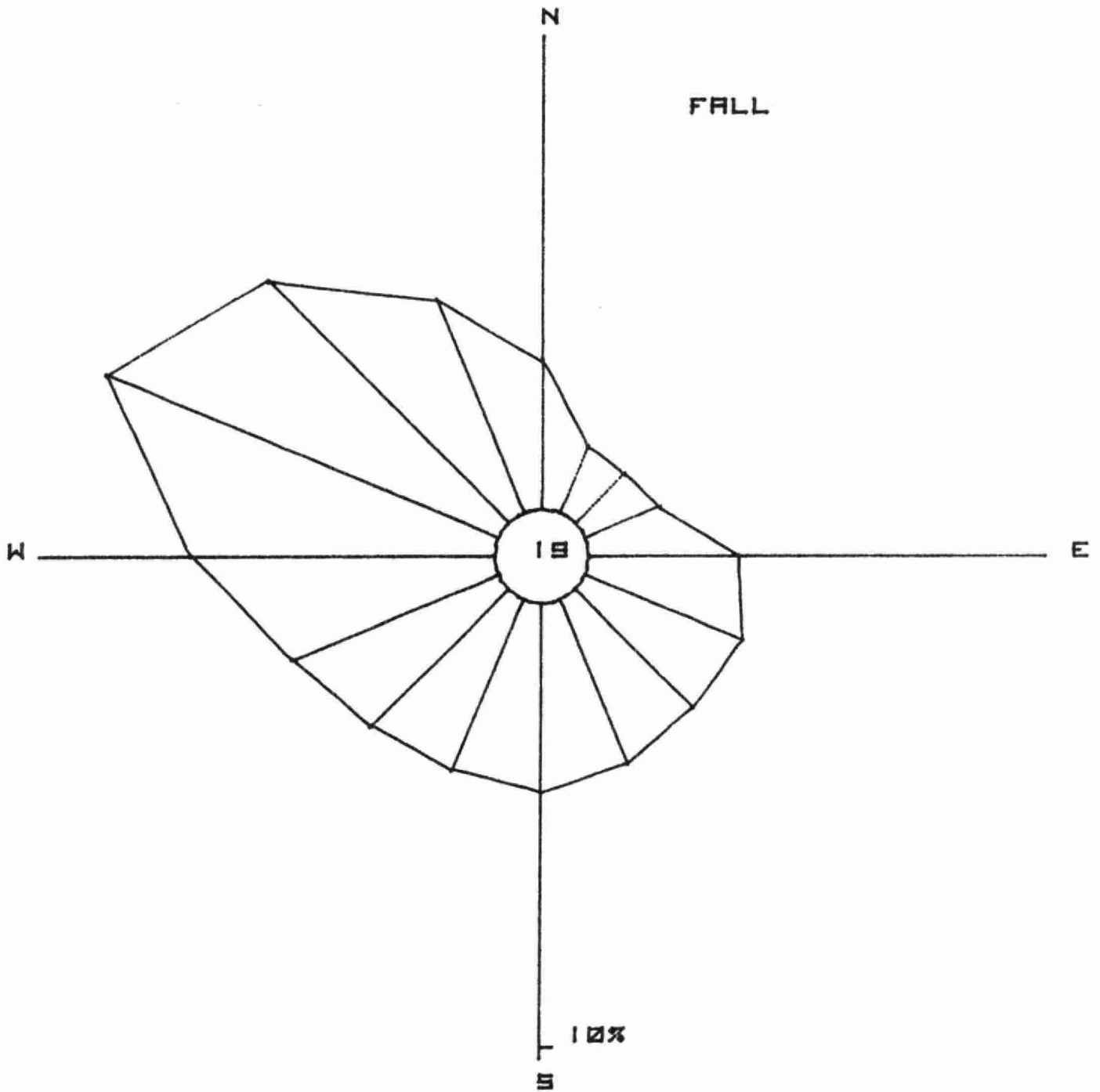
LOCATED E SIDE TOWN NE INTERSECTION HWYS
622 AND 118/HILLY ROCKY MINING TERRAIN
WITH HEAVY BUSH AND MANY LAKES
HEIGHT 13.2 M

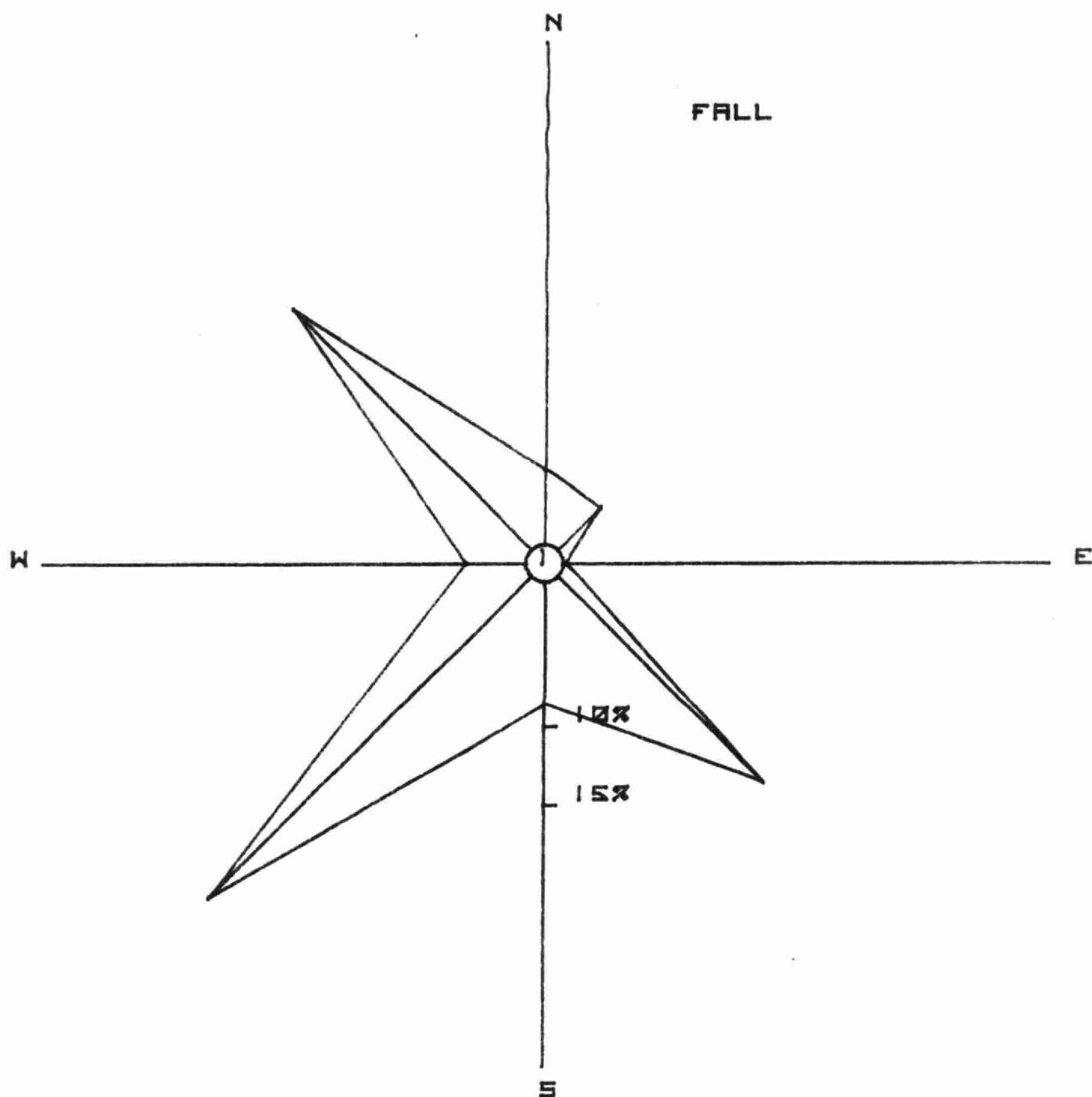
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
2	2	3	2	5	3	5	5	8	3	6	5	6	6	8	6	19

13

FALL





STATION INFORMATION

LOCATED

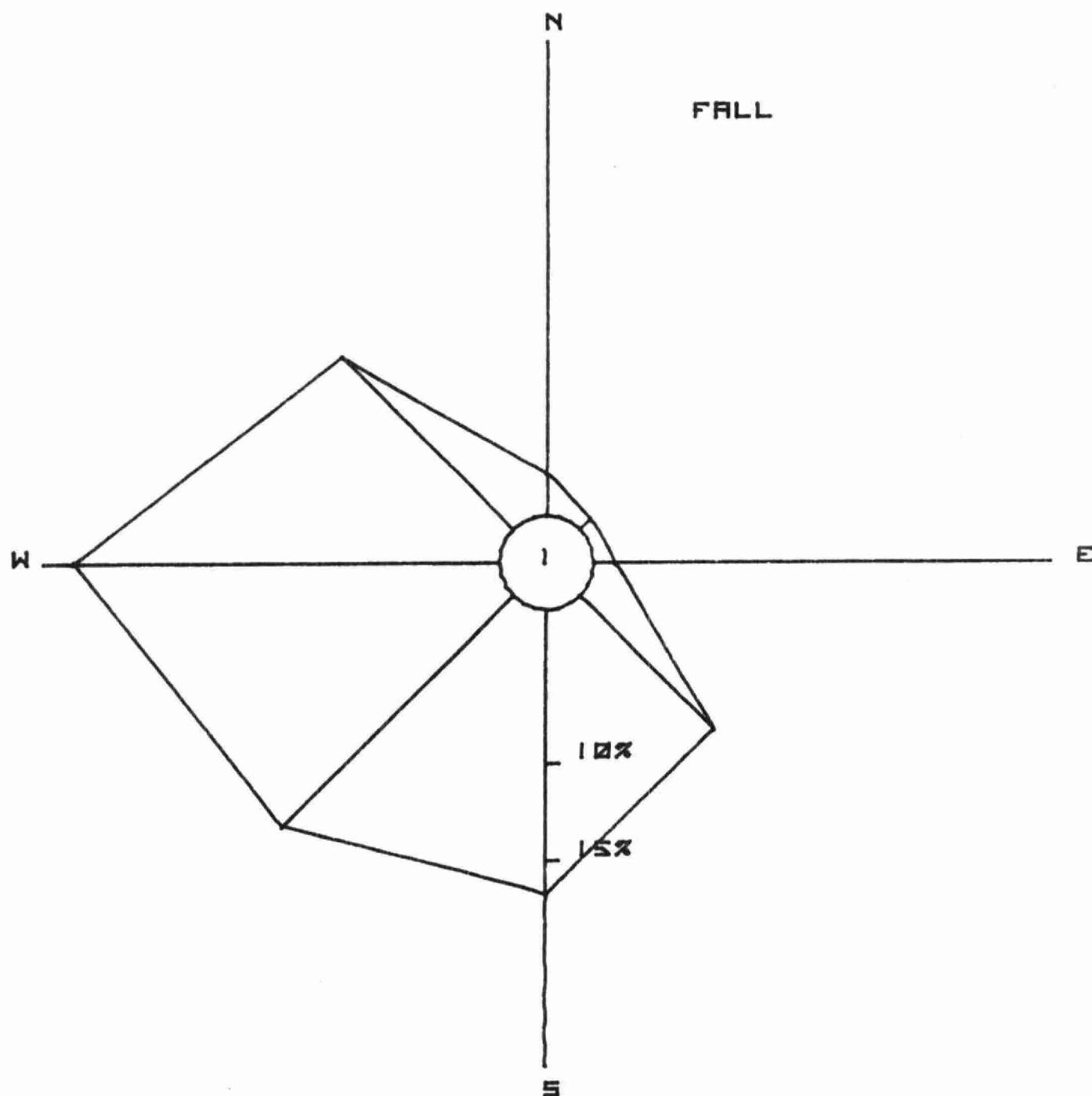
S SECTION MILITARY CAMP, AREA IS FLAT AND
WOODED IN ALL DIRECTIONS
HEIGHT 18.4M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
1	1	1	1	15	1	1	1	1

CAMP BORDEN (AES) 1960-1966
(BIASES REMOVED)

4



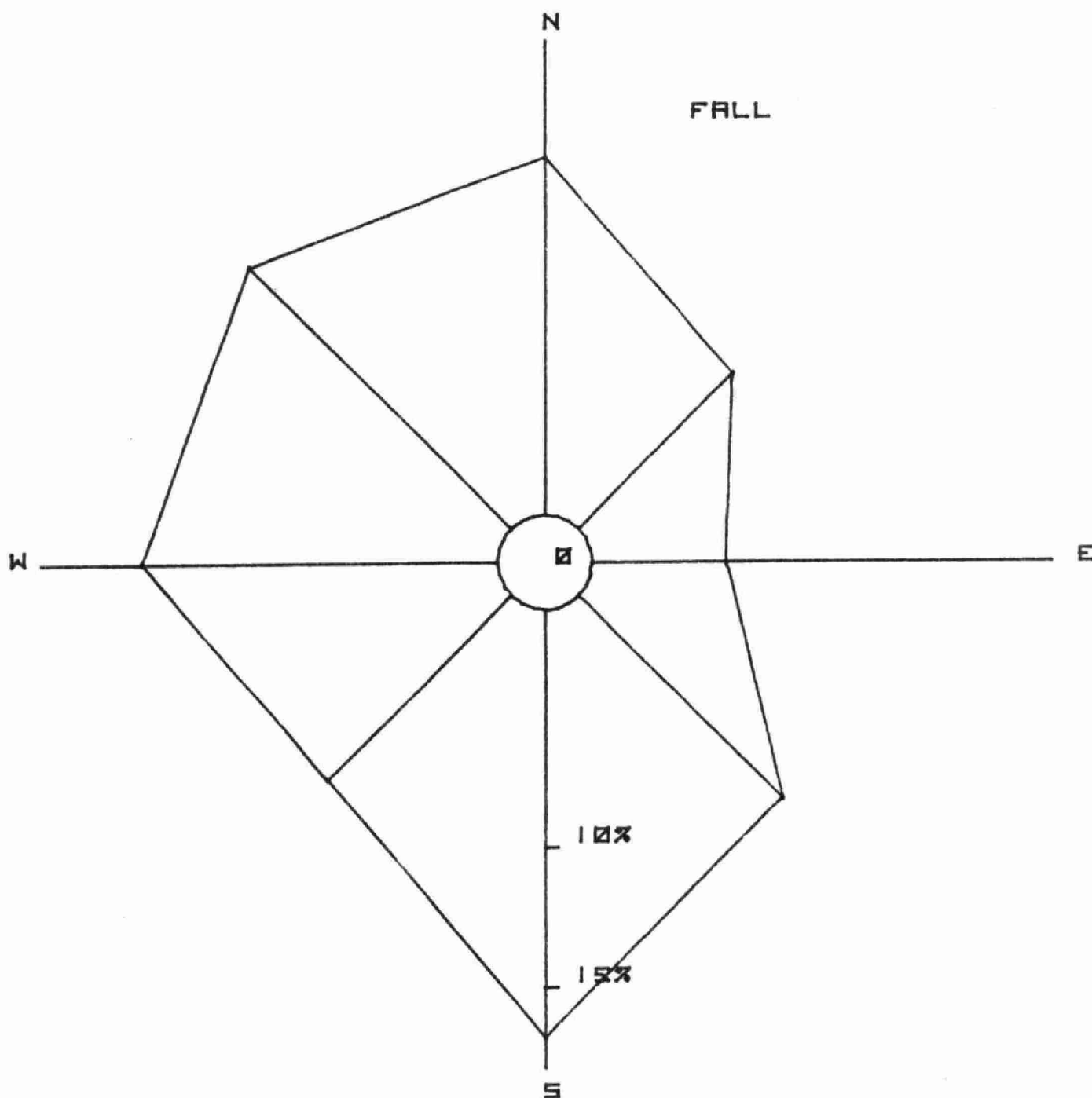
STATION INFORMATION

LOCATED

S SECTION MILITARY CAMP, AREA IS FLAT AND
WOODED IN ALL DIRECTIONS
HEIGHT 18.4M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	0	0	0	17	0	24	0	1

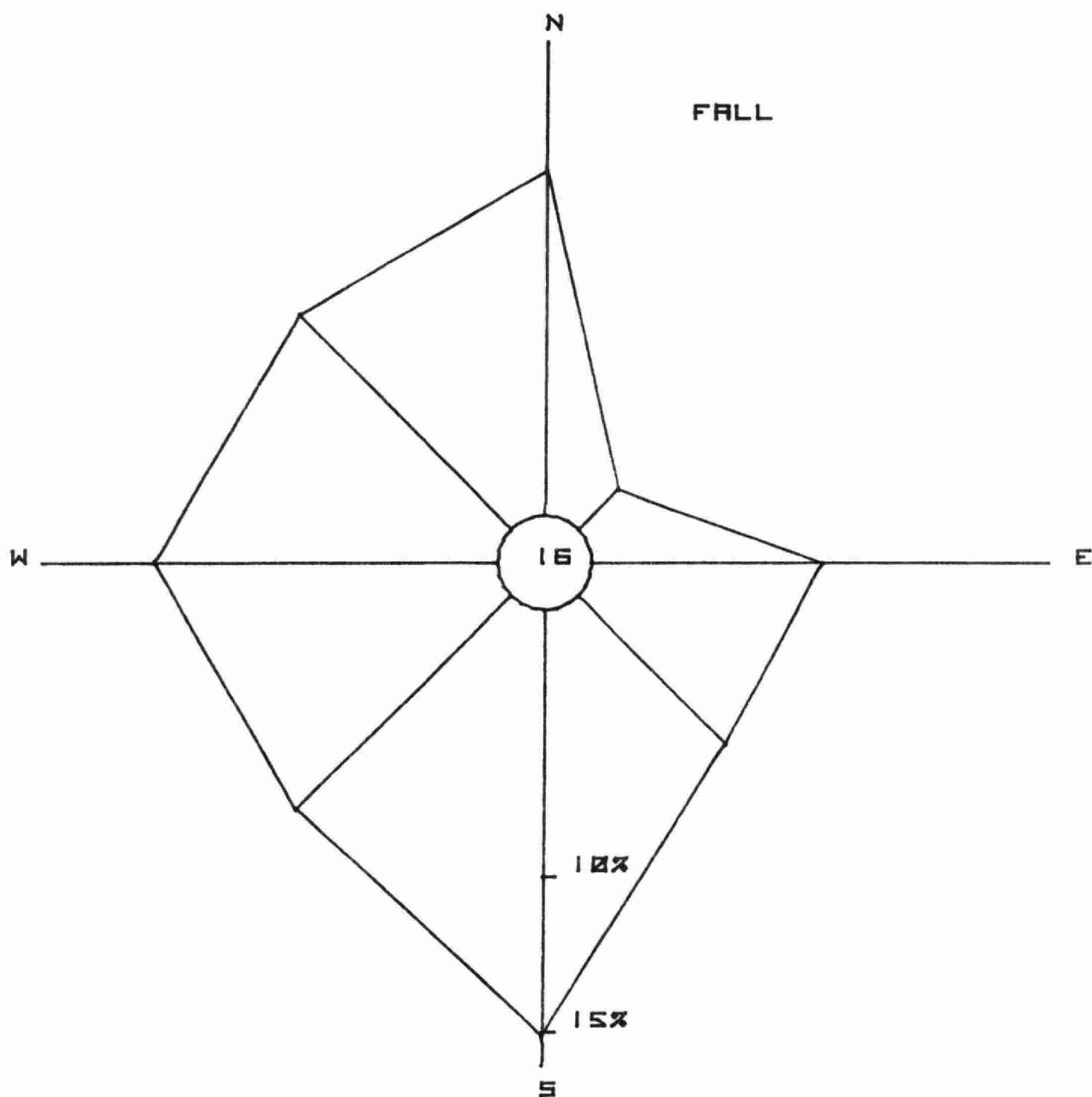


STATION INFORMATION

LOCATED ON SMALL ISLAND 120 KM SW OF
MICHIPICOTEN HARBOUR, ANEMOMETER ON
LIGHTHOUSE MAST IS NOT INDICATIVE OF
SURFACE WINDS, HEIGHT 35.4M

PERCENTAGE FREQUENCY

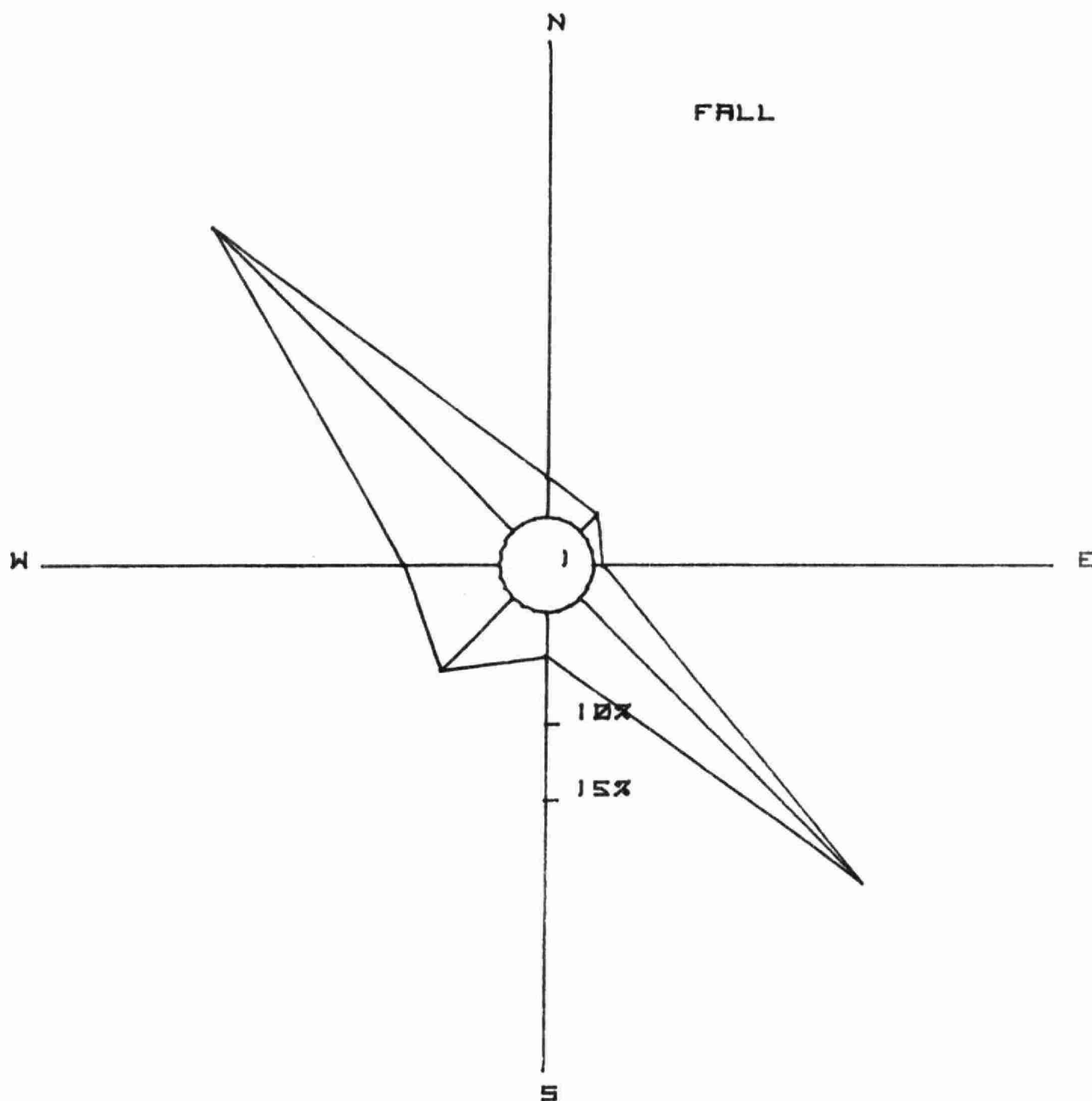
N	NE	E	SE	S	SW	W	NW	CALM
15	10	7	12	17	11	15	15	0



STATION INFORMATION
 LOCATED WAS IN
 FAIRLY FLAT BUSH
 COUNTRY AT CARTIER
 HEIGHT UNKNOWN

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	10	10	10	15	10	10	10	16

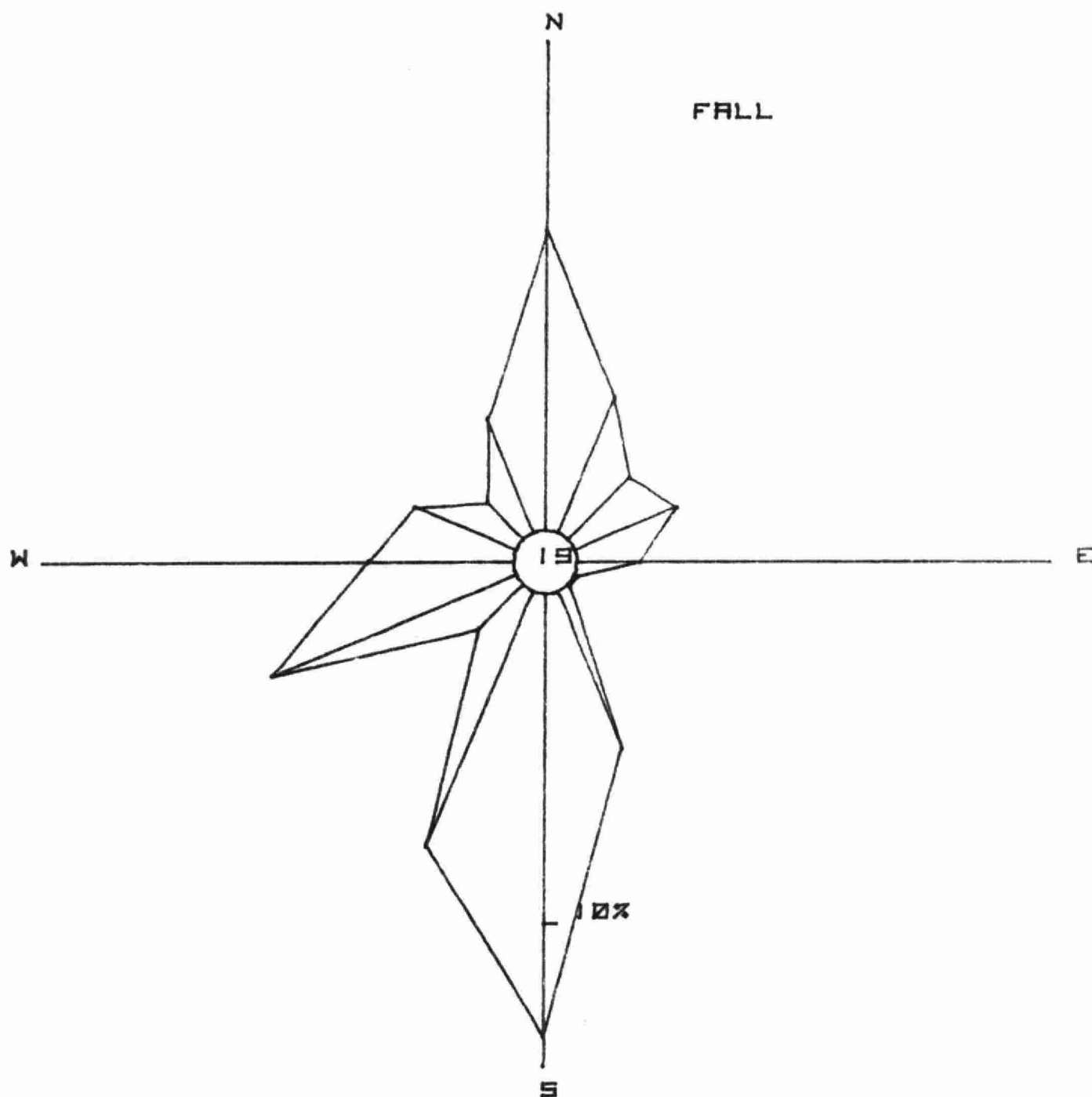


STATION INFORMATION

LOCATED DOMINION FORESTRY STN 1.6KM S OF
TOWN IN A SHALLOW E-W VALLEY. ROLLING
WOODED COUNTRY AROUND STN.
HEIGHT 24.3M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	0	4	20	0	10	0	31	1

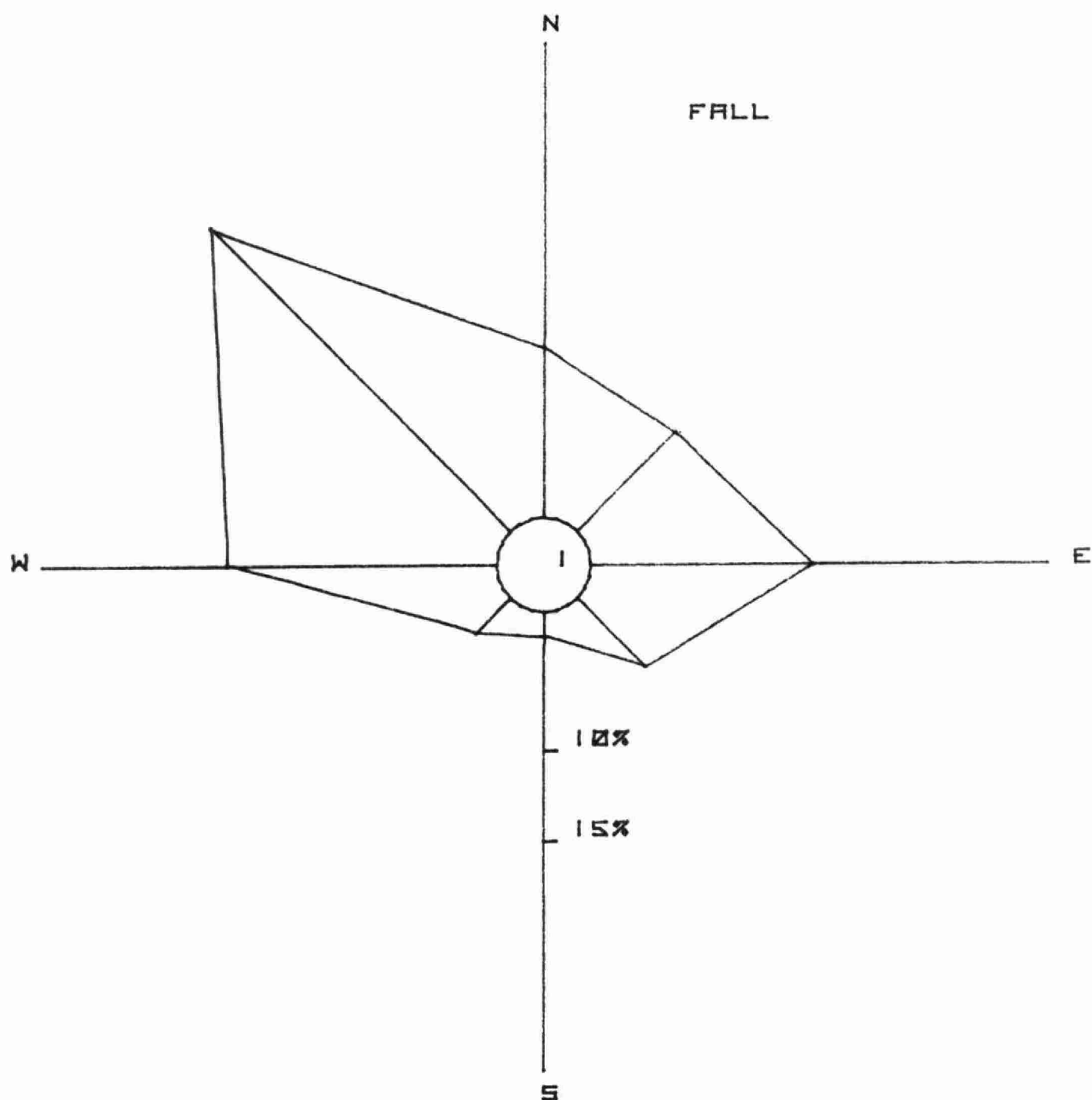


STATION INFORMATION

LOCATED E BANK OF CHAPLEAU RIVER, WOODED
AND HILLY WITH MANY LAKES AND RIVERS,
SURROUNDED BY VARIOUS BLDGS.
HEIGHT 13.2M

PERCENTAGE FREQUENCY

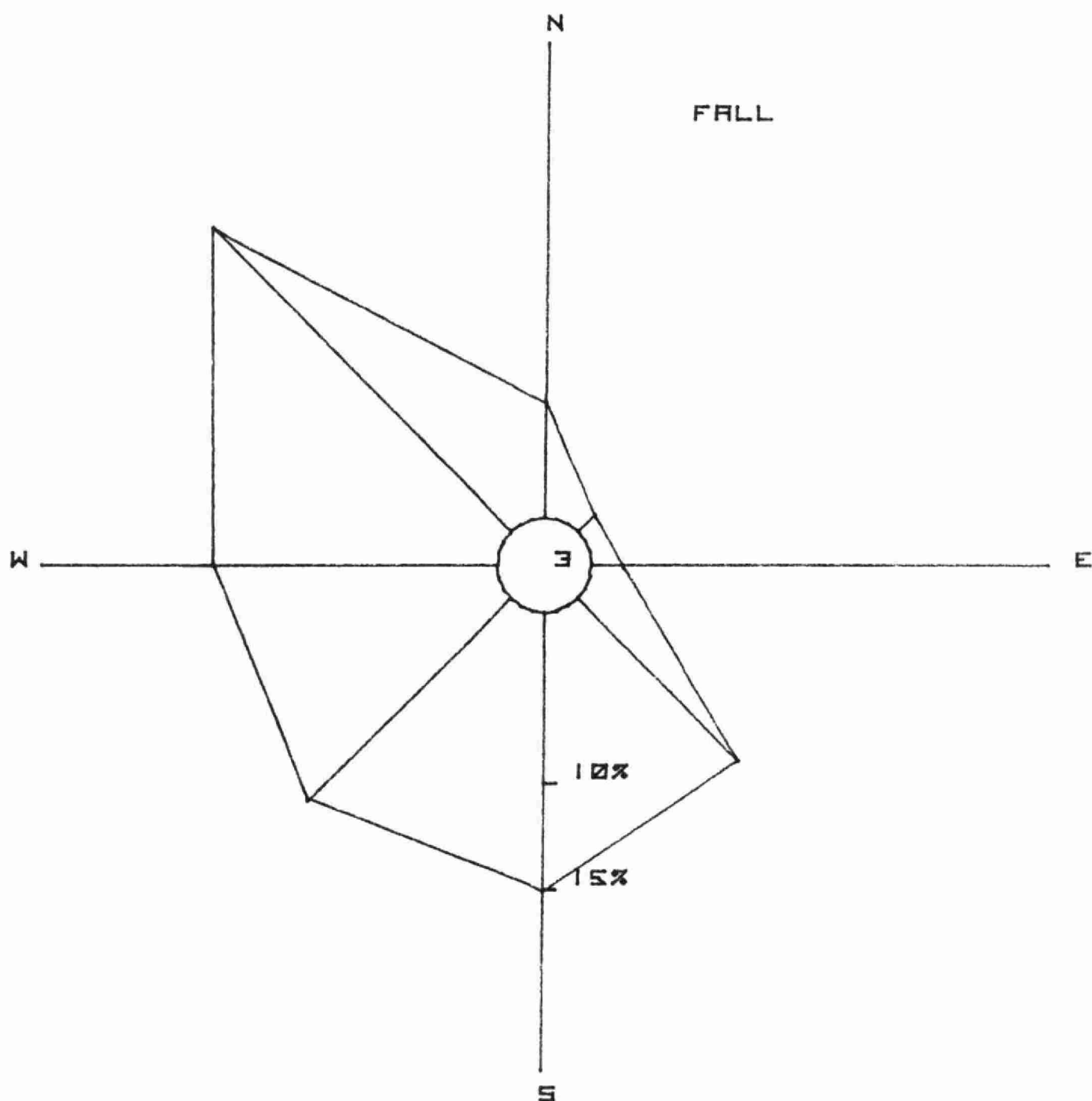
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
2	2	3	4	3	1	1	8	13	9	3	8	5	4	2	4	18



STATION INFORMATION
 LOCATED WHEN IT WAS OPERATED
 ON DOCK IN
 HARBOUR AT COBBOURG
 HEIGHT 12.3M

PERCENTAGE FREQUENCY

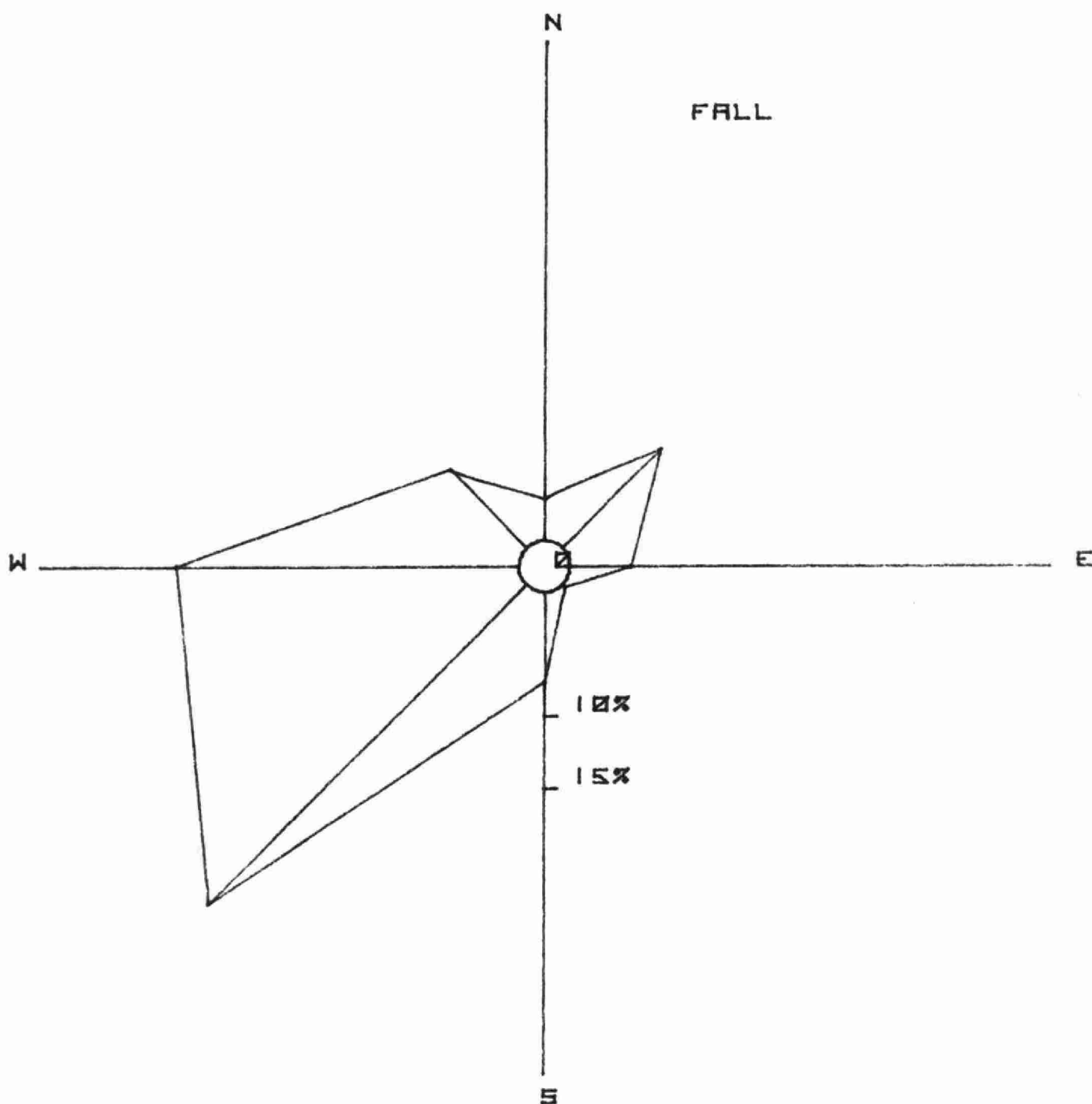
N	NE	E	SE	S	SW	W	NW	CALM
12	10	15	0	4	5	10	20	1



STATION INFORMATION
 LOCATED WHEN OPERATED
 ON HIGHEST RIDGE OF LAND
 RUNNING E-W THROUGH TOWN.
 HEIGHT 12.3M

PERCENTAGE FREQUENCY

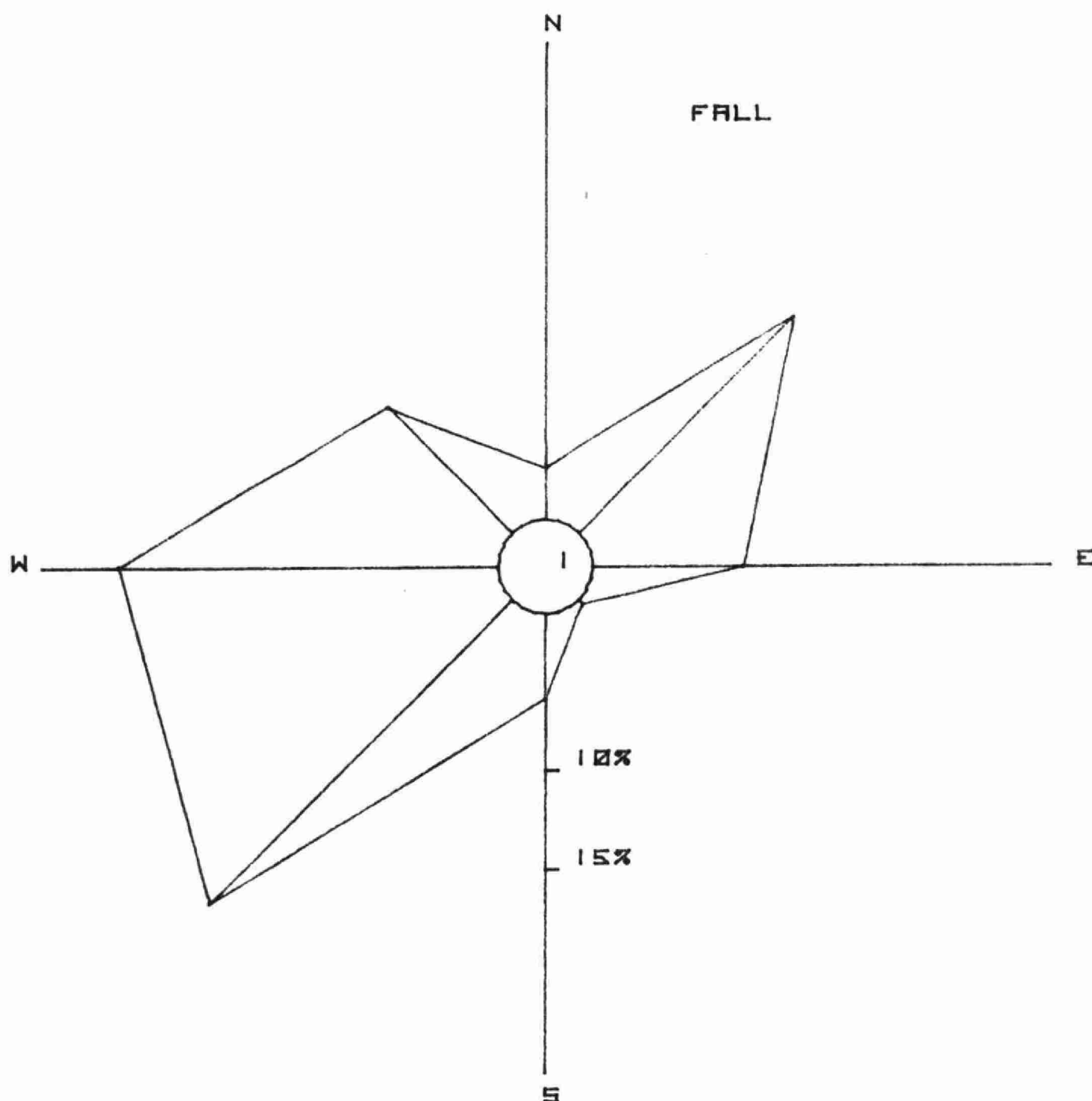
N	NE	E	SE	S	SW	W	NW	CALM
0	0	0	0	10	0	10	0	3



STATION INFORMATION
 LOCATED
 AT 861 WEST SECOND ST
 IN CORNWALL.
 HEIGHT UNDER 23M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	11	6	2	6	33	28	5	0

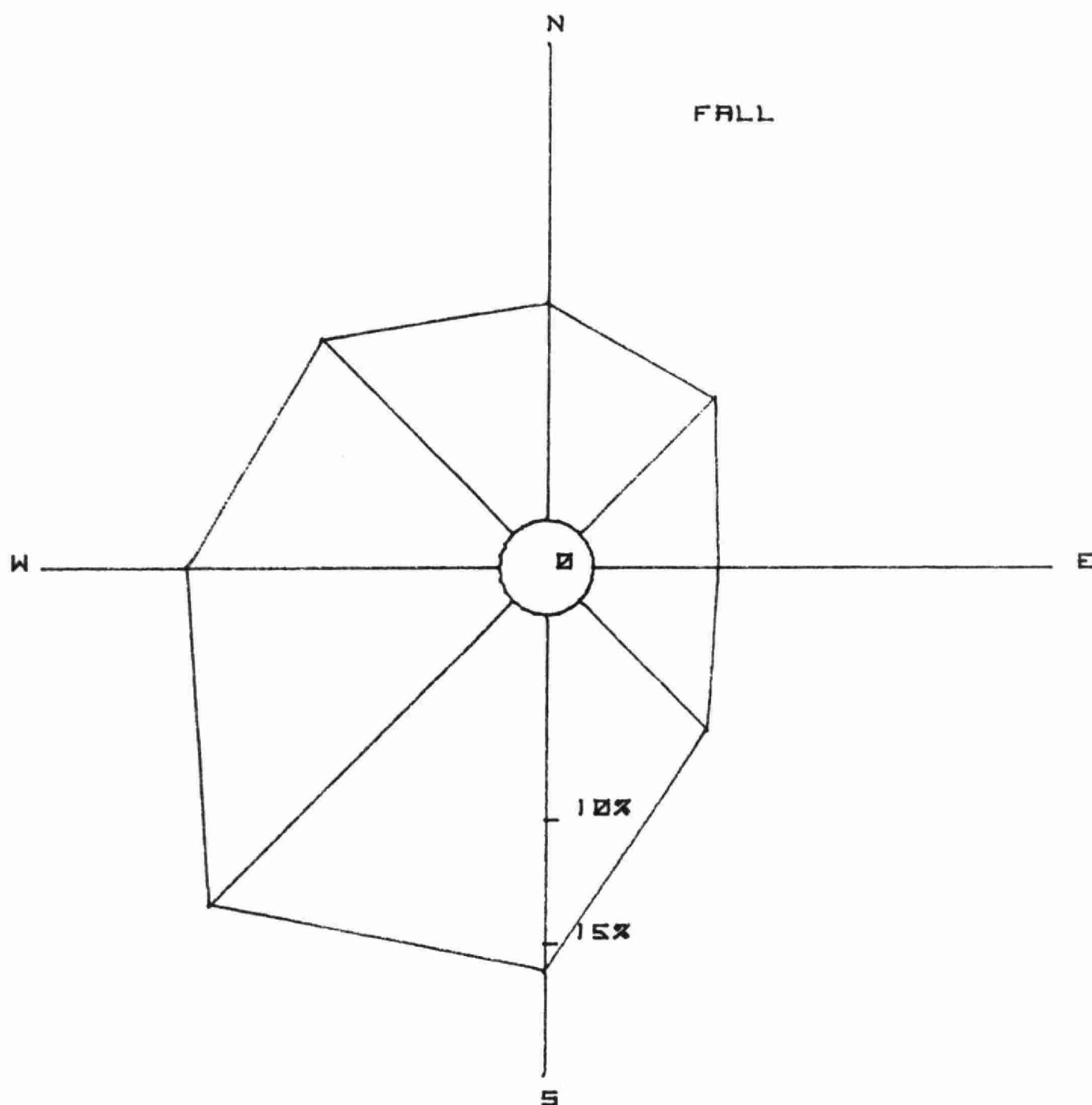


STATION INFORMATION

LOCATED AT TRANSFORMER SITE NW
OF CORNWALL, AREA FLAT, WITH
TOWERS IN ALL DIRECTIONS
HEIGHT 22.5M

PERCENTAGE FREQUENCY

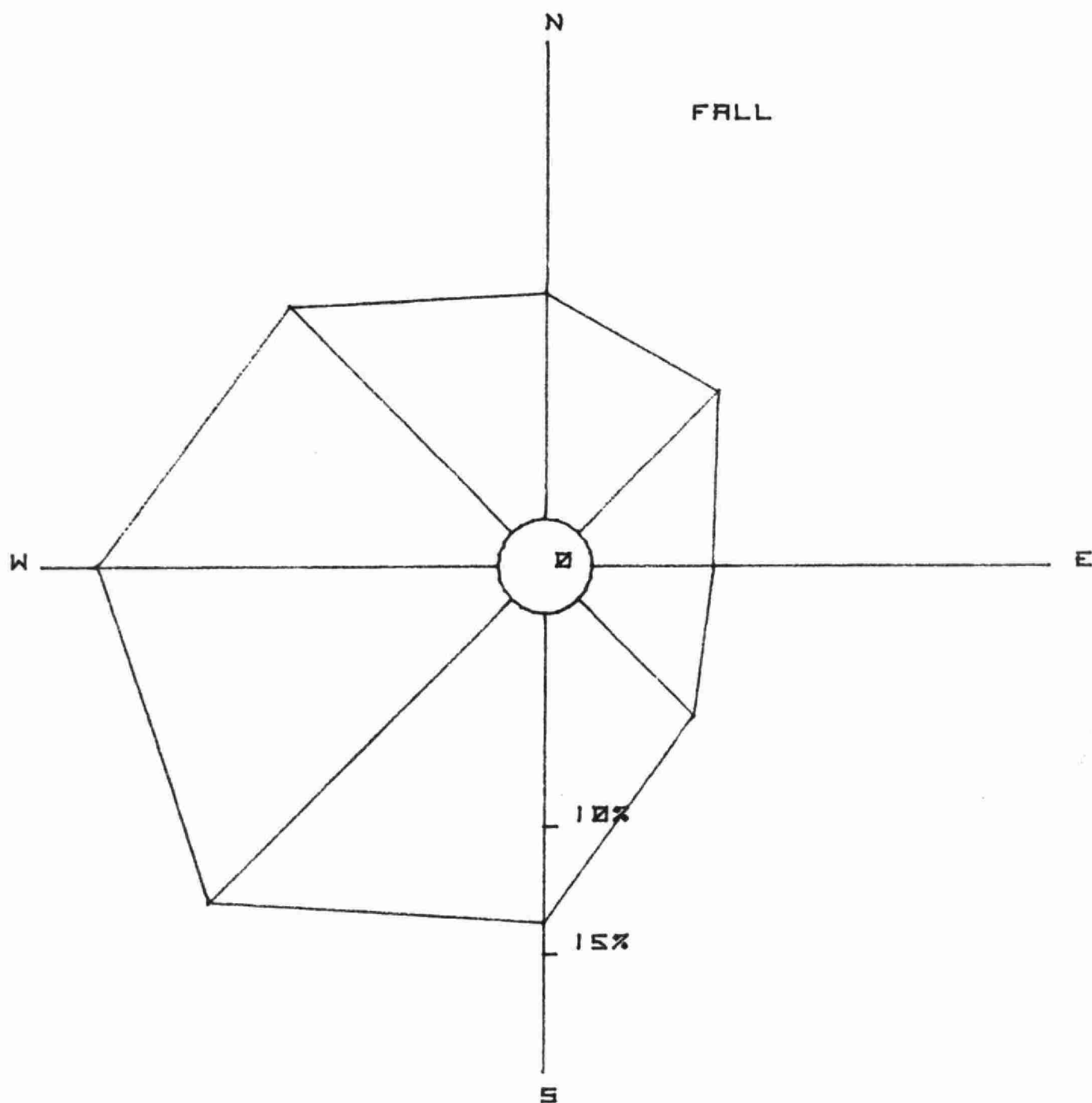
N	NE	E	SE	S	SW	W	NW	CALM
0	0	0	0	7	0	22	11	1



STATION INFORMATION
 LOCATED
 OPPOSITE LAMBDON SS
 HWY 40 COURTRIGHT
 HEIGHT 10.1M

PERCENTAGE FREQUENCY

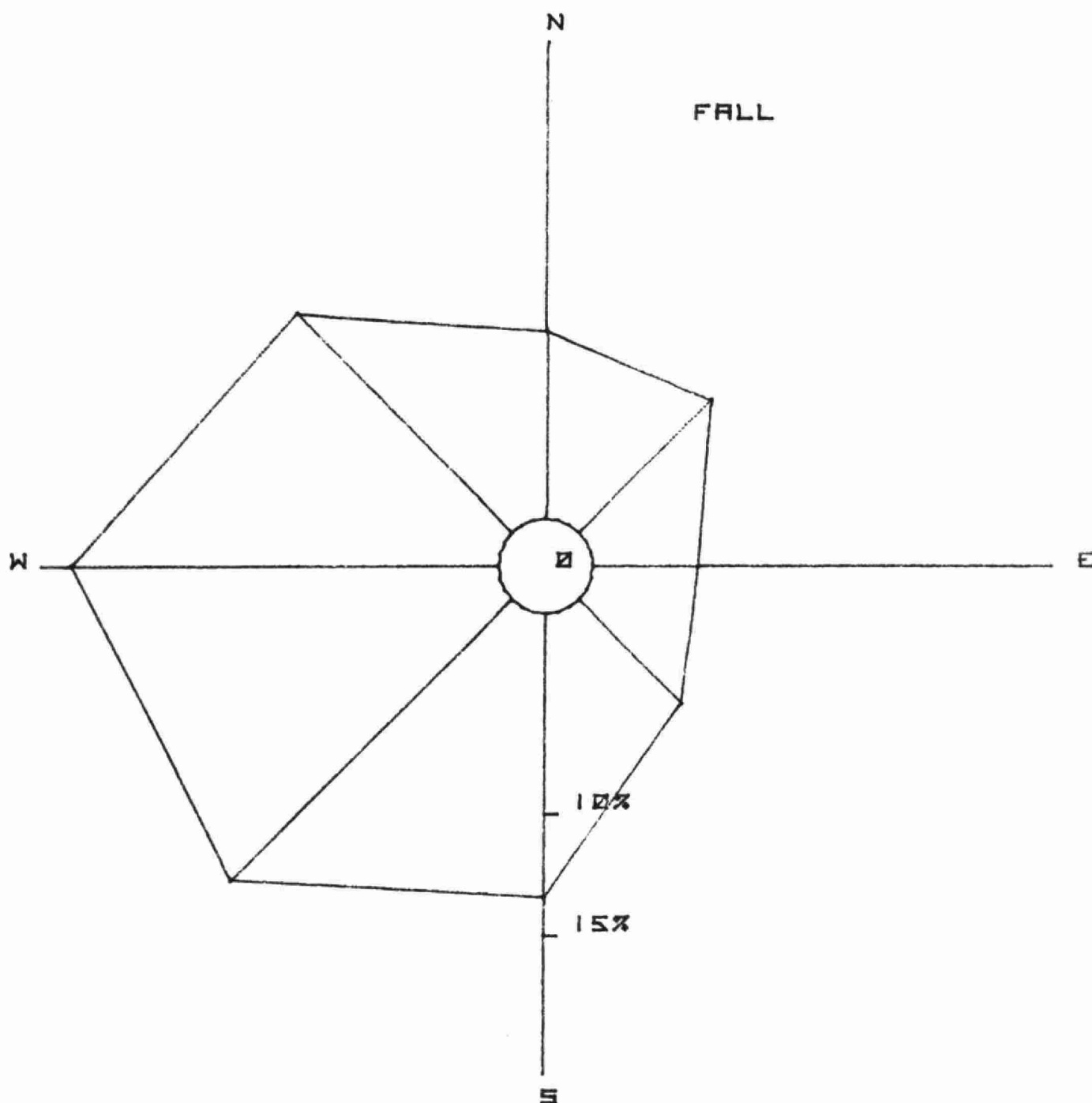
N	NE	E	SE	S	SW	W	NW	CALM
11	10	7	8	15	10	15	13	0



STATION INFORMATION
 LOCATED
 OPPOSITE LAMBTON GS
 HWY 40 COURTRIGHT
 HEIGHT 30.8M

PERCENTAGE FREQUENCY

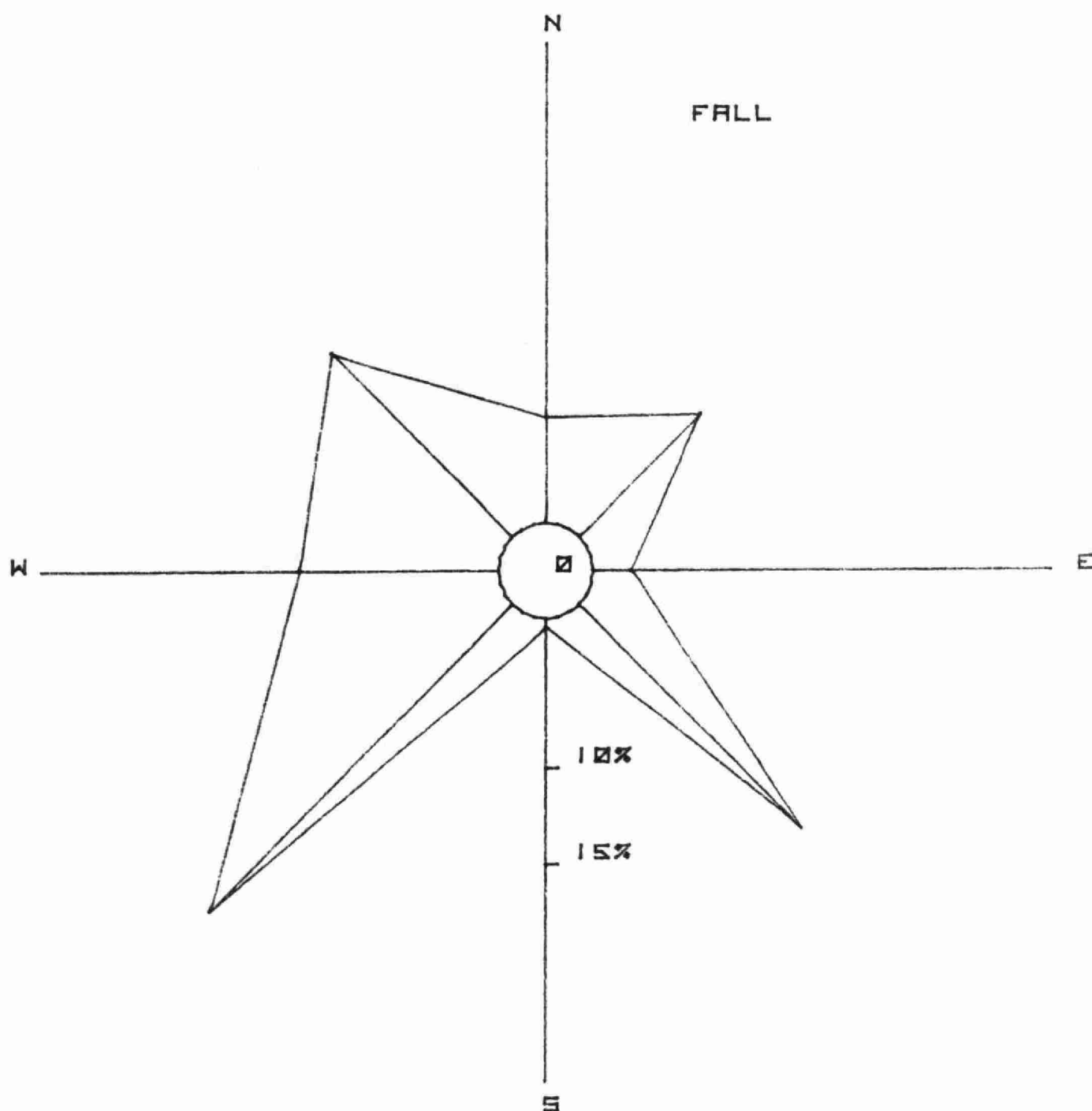
N	NE	E	SE	S	SW	W	NW	CALM
11	10	7	6	14	15	18	14	0



STATION INFORMATION
 LOCATED
 OPPOSITE LAMBTON GS
 HWY 40 COURTRIGHT
 HEIGHT 92.3M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	10	0	0	15	10	10	10	0



STATION INFORMATION

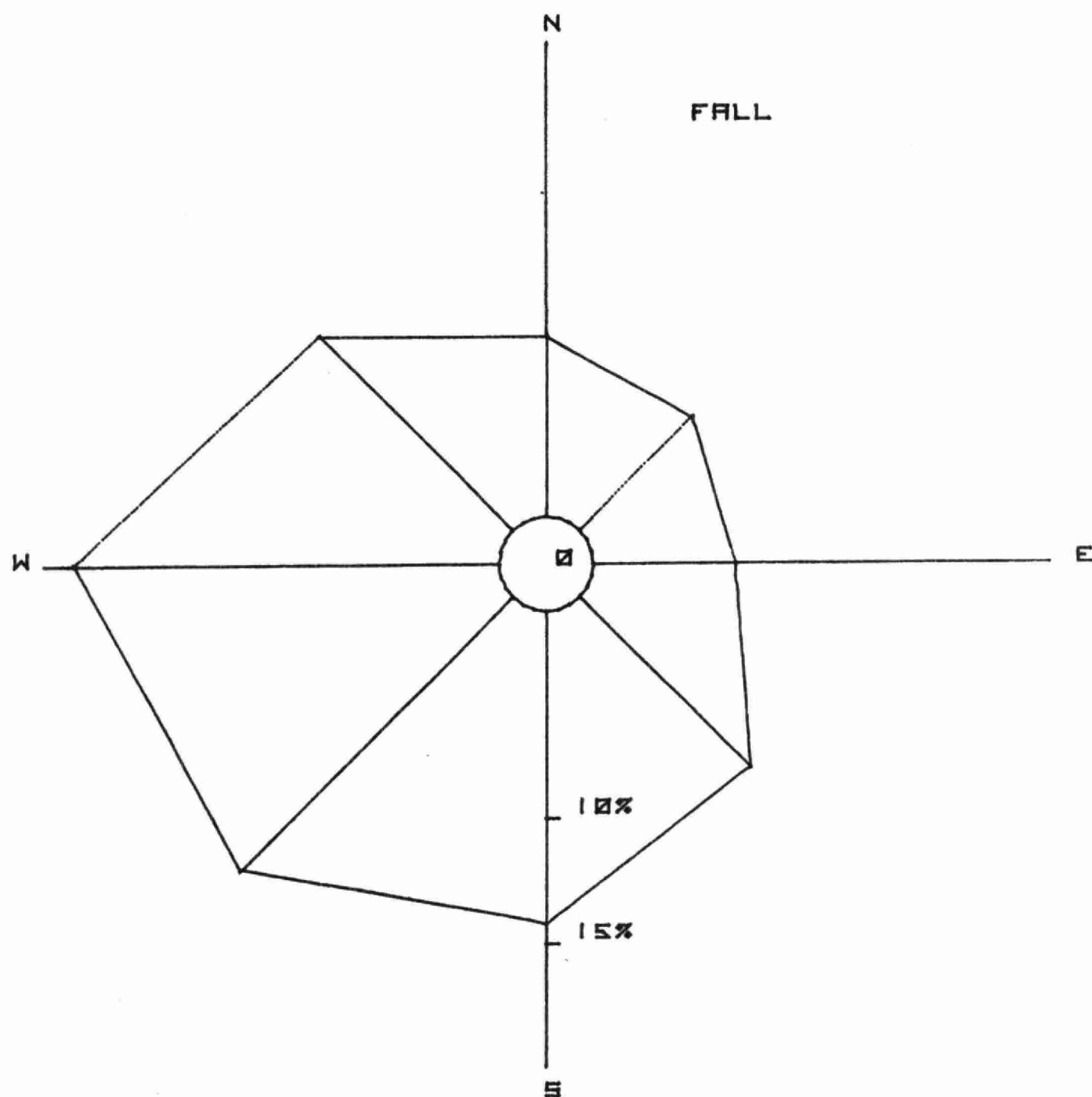
LOCATED NR LIGHTHOUSE, NE TIP OF ISLAND,
 POOR EXPOSURE FROM S TO SW CAUSED BY HIGH
 WOODED AREA, OTHERWISE GOOD EXPOSURE
 HEIGHT 12.3M

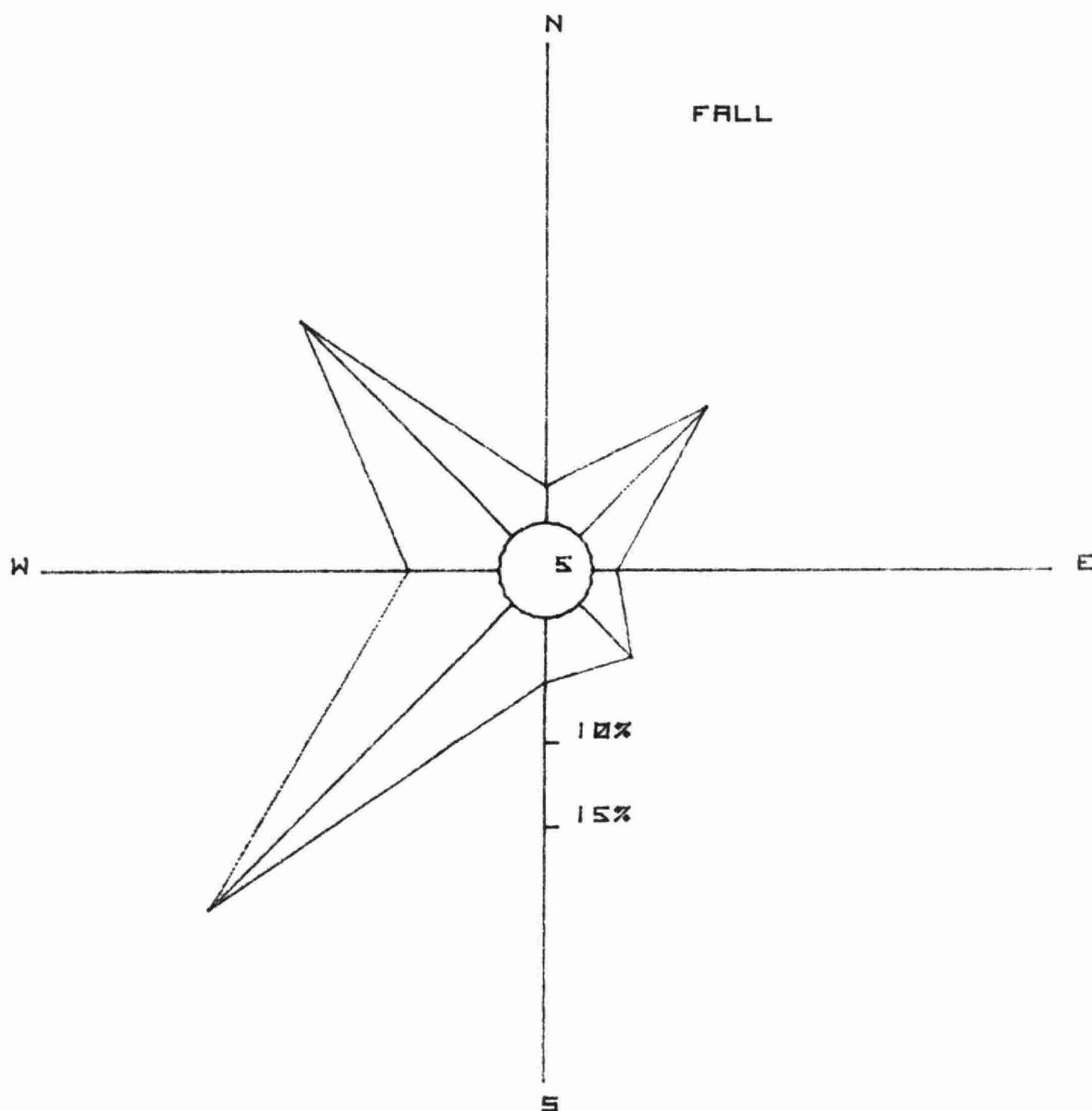
PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
5	12	5	15	3	25	13	15	2

COVE ISLAND (AES) 1965-1972
(BIASES REMOVED)

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STATION INFORMATION

LOCATED AT EXPERIMENTAL FARM, AREA FLAT,
 ROLLING LAND IN DISTANCE WITH TREES 4-5M
 TALL 84M AWAY, NEAREST BLDG 64M
 HEIGHT 9.9M

PERCENTAGE FREQUENCY

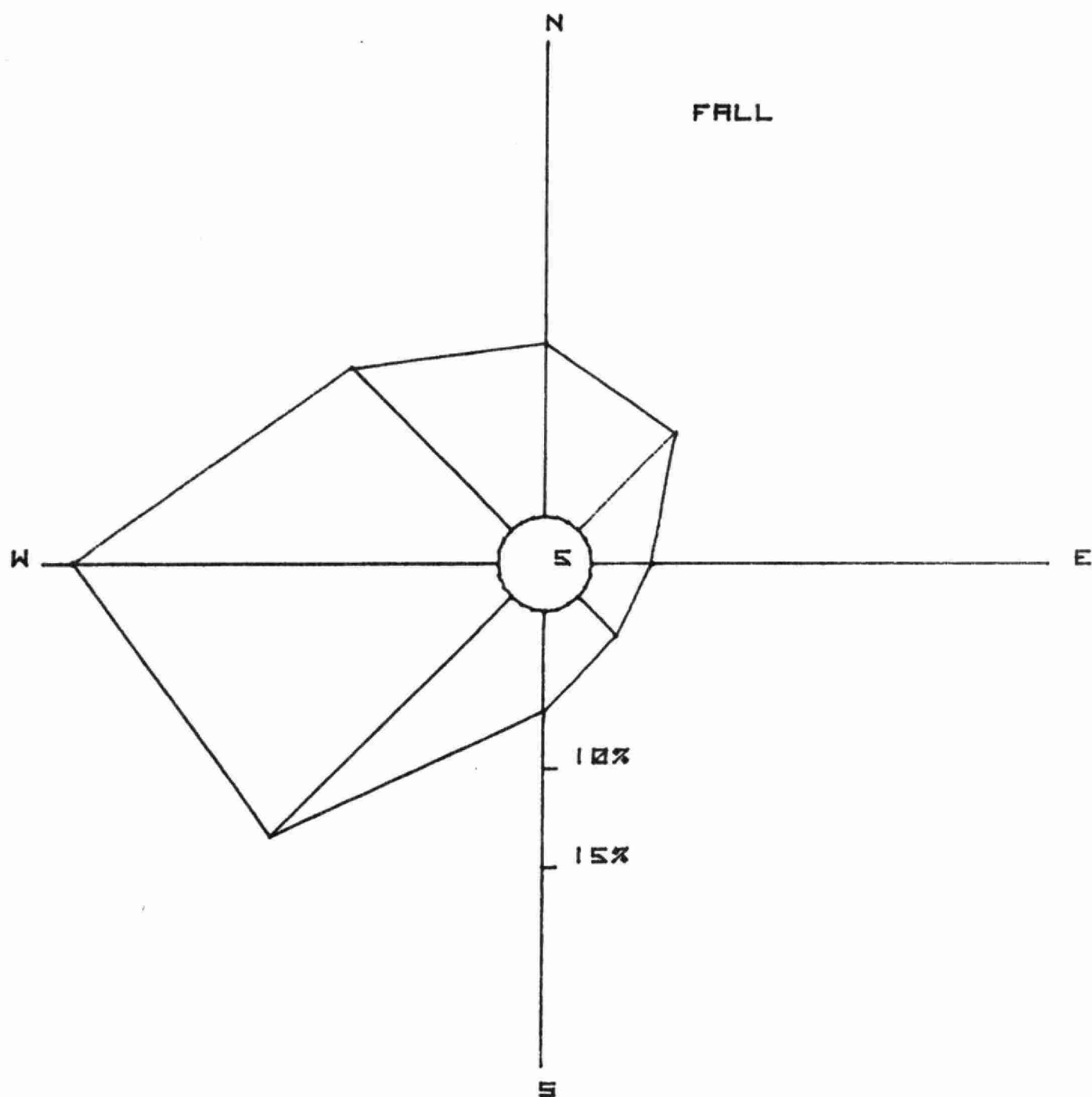
N	NE	E	SE	S	SW	W	NW	CALM
5	14	4	7	7	28	8	21	5

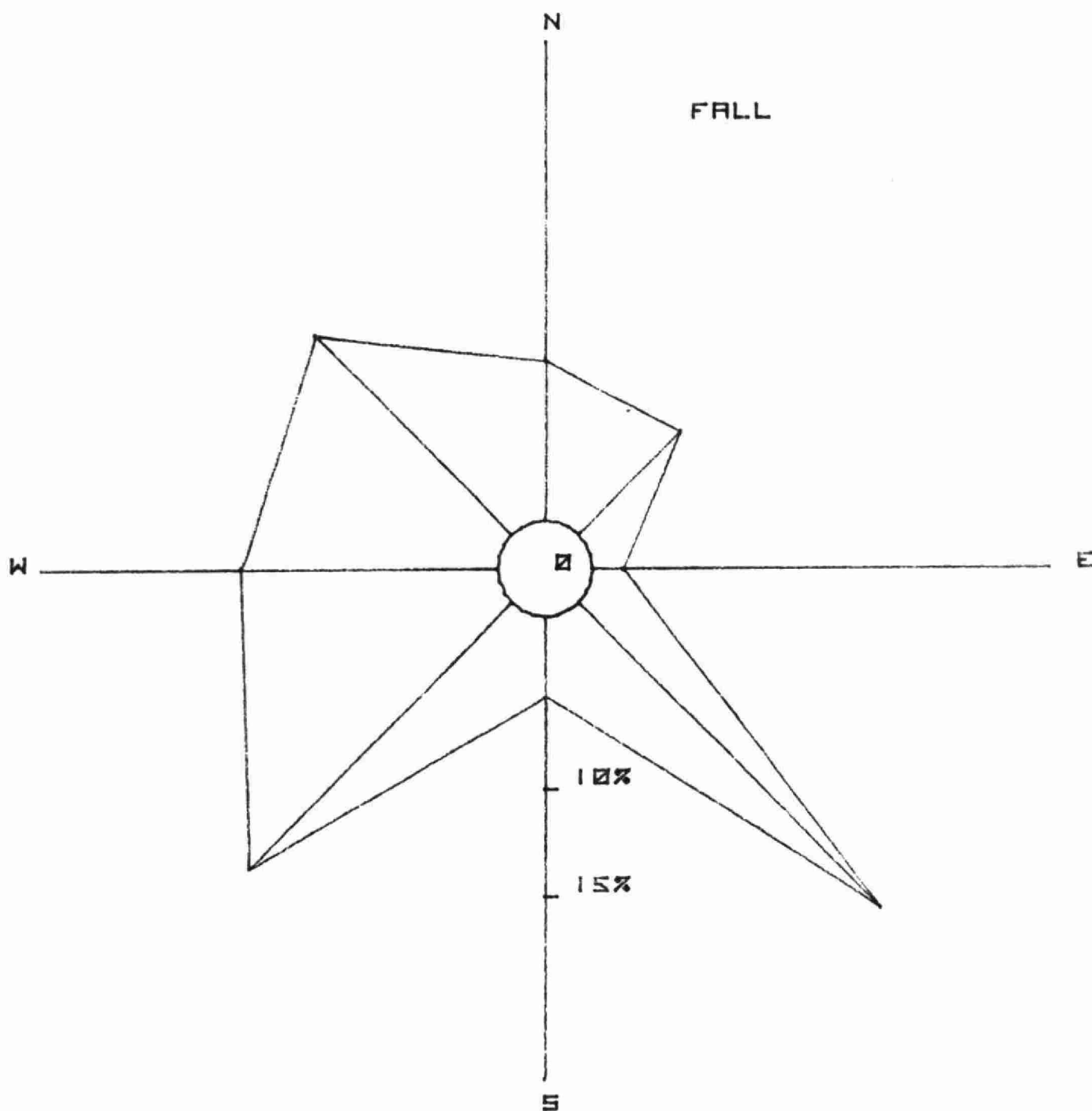
DELHI (AES) 1959-1972

(BIASES REMOVED)

18

FALL





STATION INFORMATION

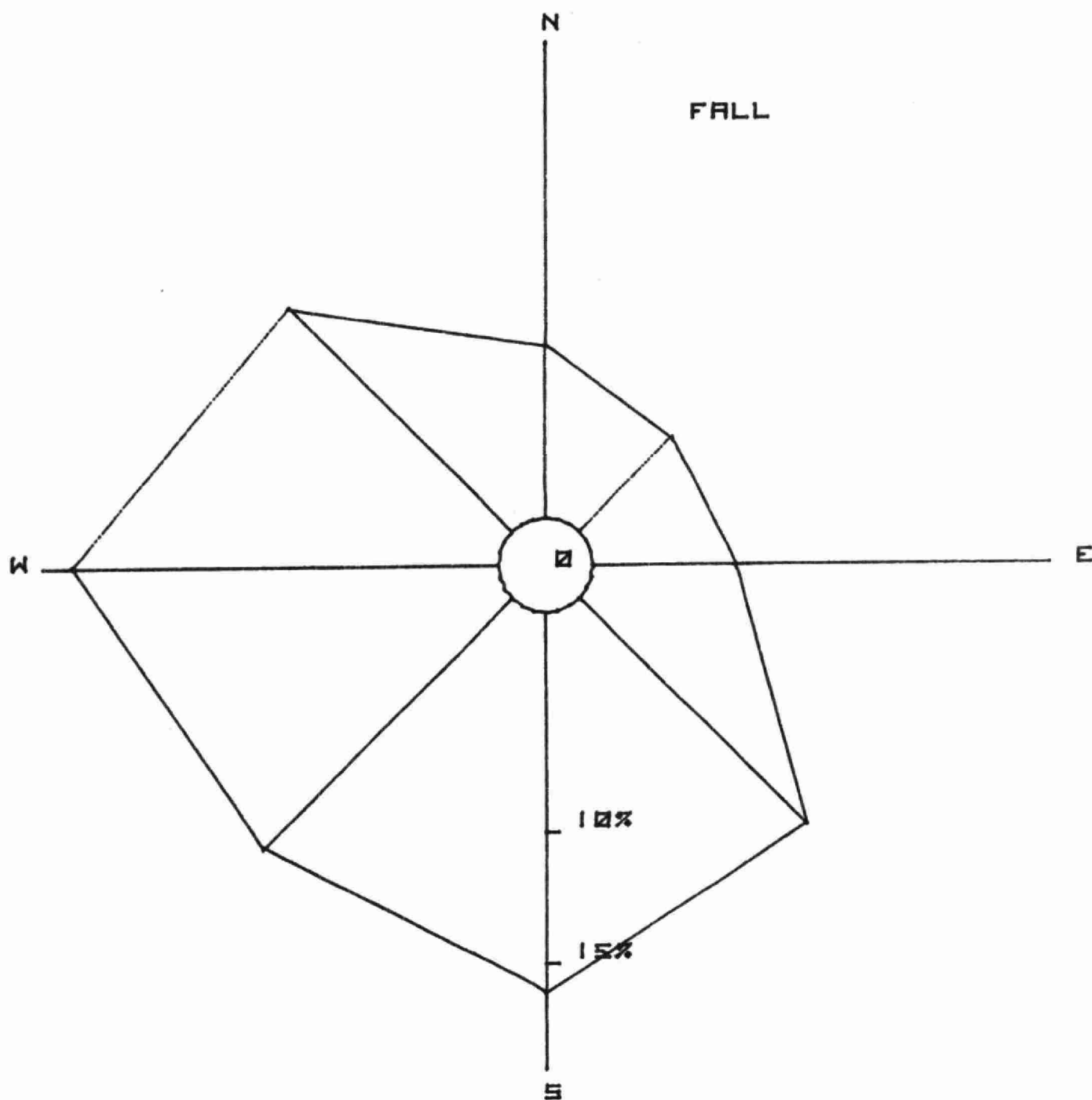
LOCATED 12M E LAKE SHORE IN FLAT HEAVILY
 WOODED AREA. S WINDS AFFECTED BY WOODS AND
 NE WINDS BY POWER PLANT
 HEIGHT 13.2M

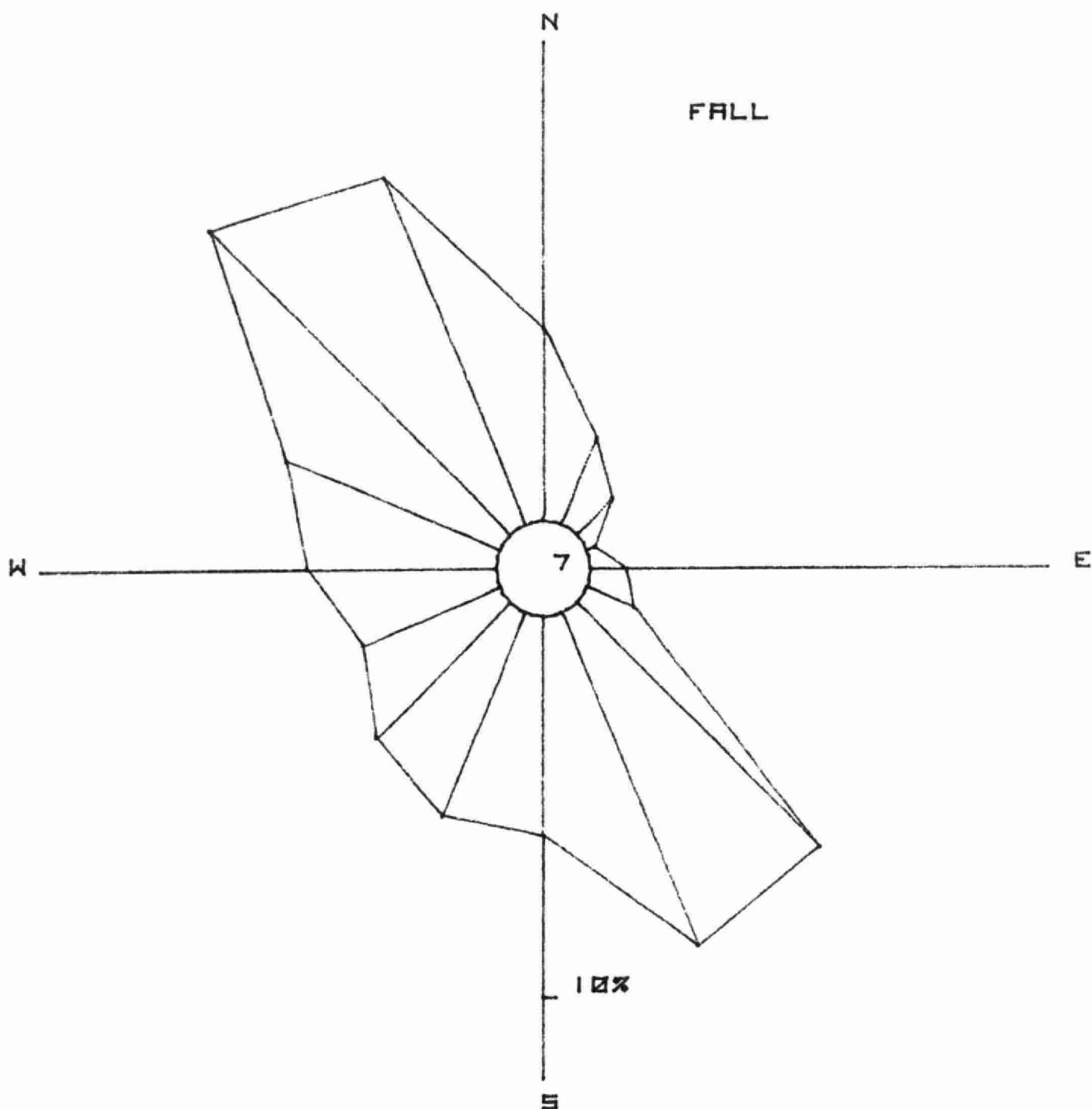
PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	5	4	22	5	20	14	15	0

DOUGLAS POINT (AES) 1965-1971
(BIASES REMOVED)

19



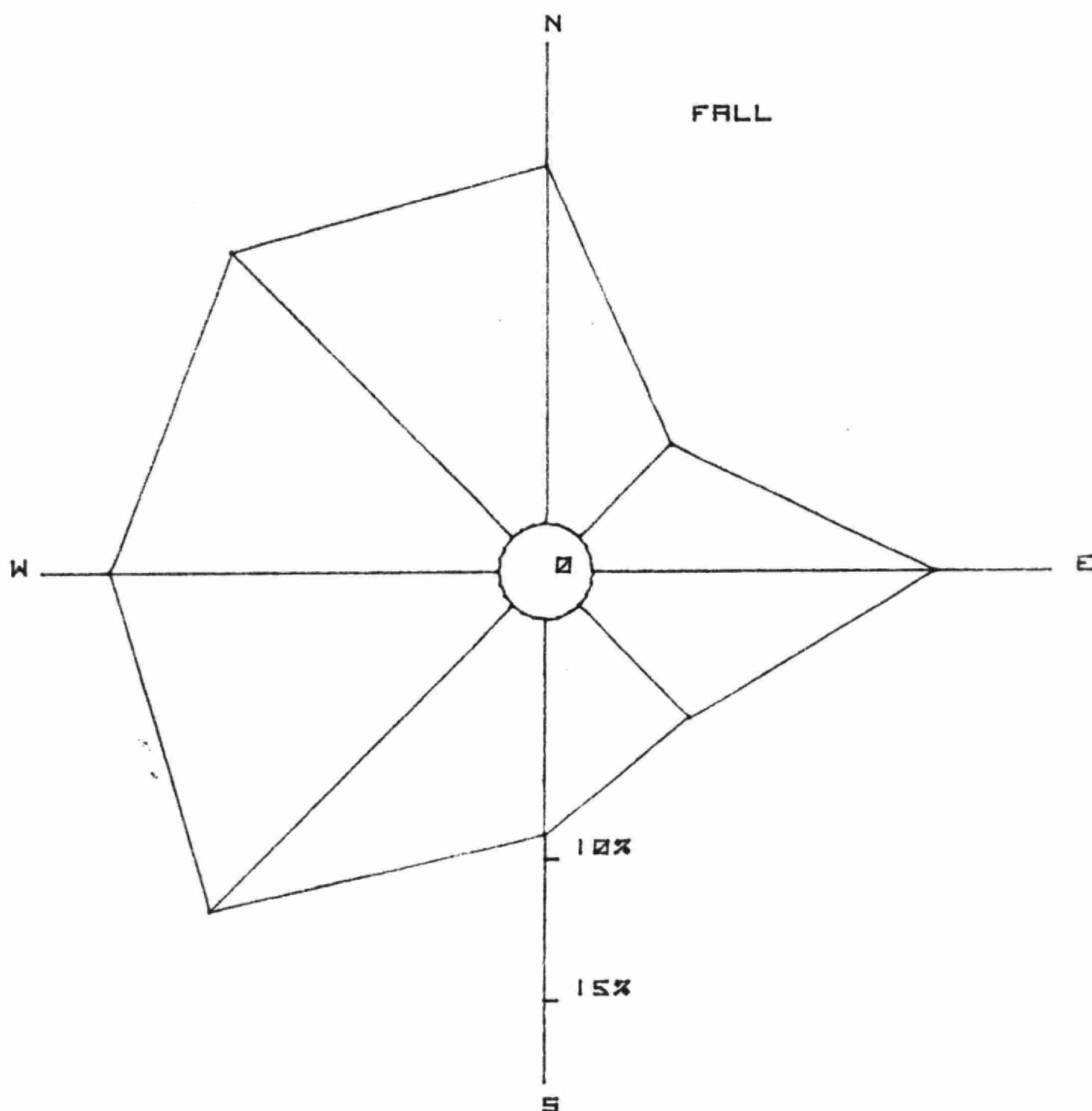


STATION INFORMATION

LOCATED AT AIRPORT 3.1KM
SW OF RAILWAY STN AND VILLAGE/
AREA FLAT AND CLEAR OF BUSH
HEIGHT 19.7M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
3	3	2	1	2	2	8	10	8	6	8	4	6	7	11	10	7

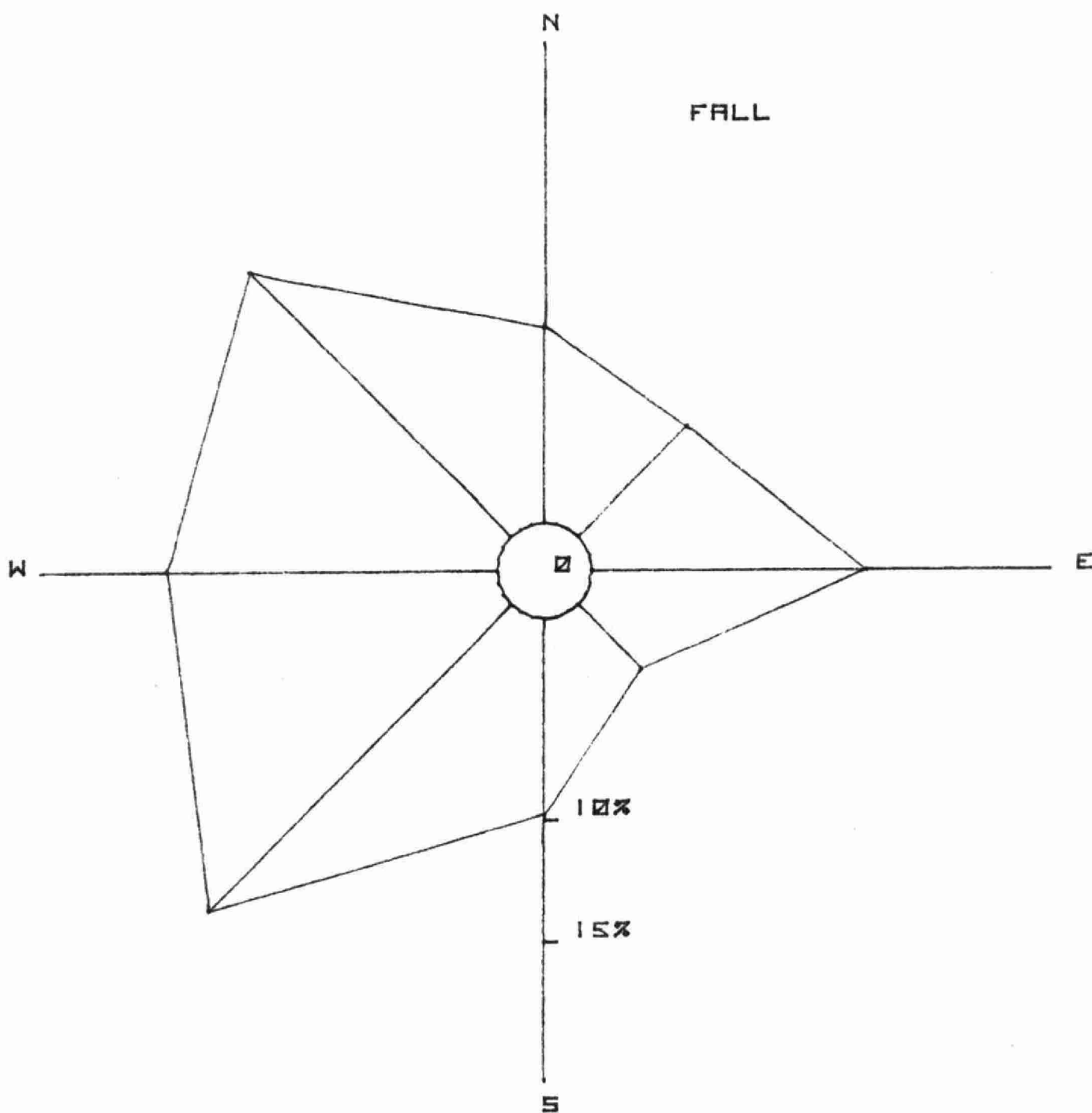


STATION INFORMATION

LOCATED
AT EVANS/ARNOLD STEETS
IN ETOBICOKE
HEIGHT 10.1M

PERCENTAGE FREQUENCY

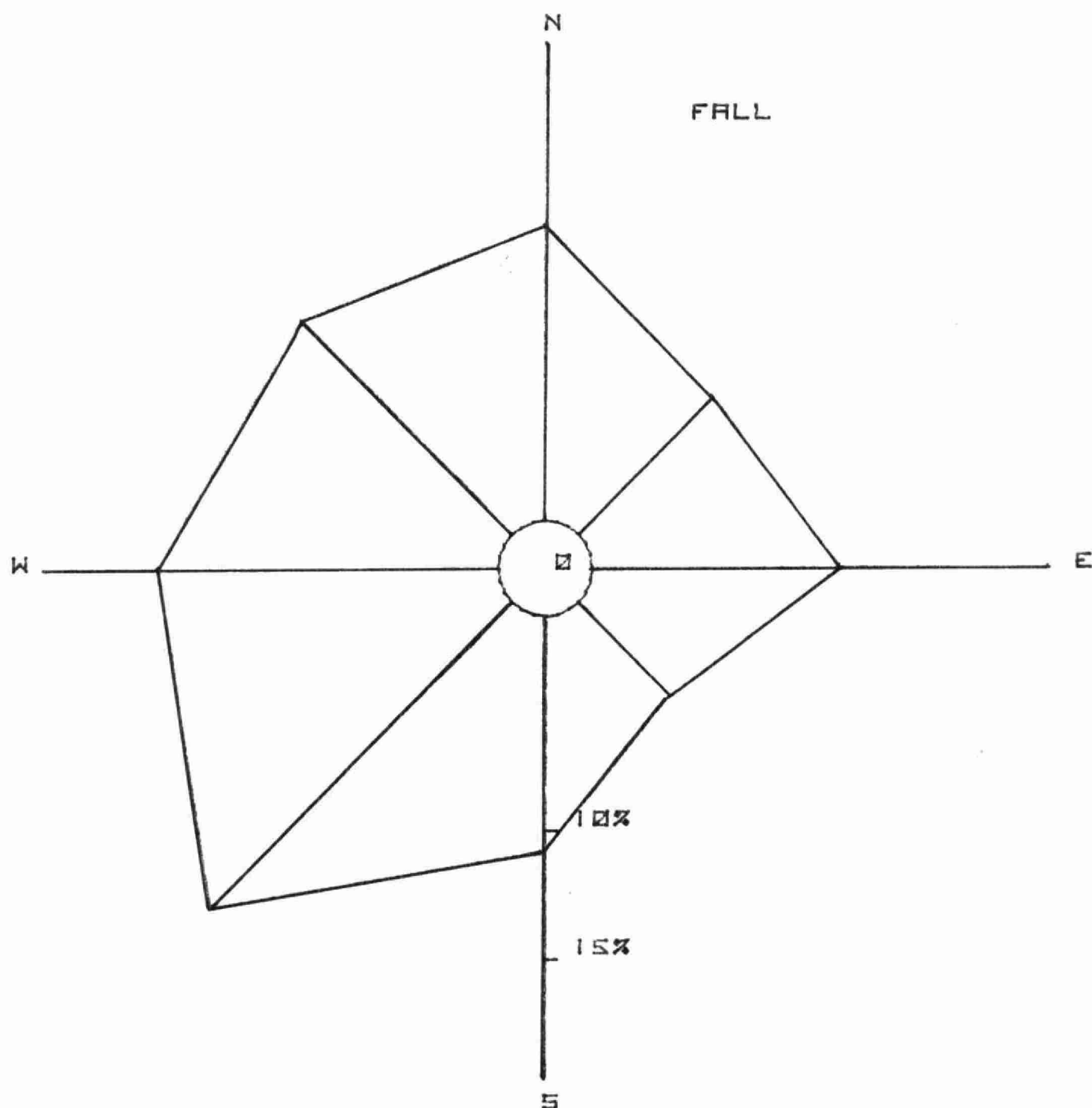
N	NE	E	SE	S	SW	W	NW	CALM
11	5	14	7	5	17	16	16	0



STATION INFORMATION
 LOCATED
 AT EVANS/ARNOLD STREETS
 IN ETOBICOKE
 HEIGHT 30.8M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	8	10	8	10	20	18	17	0

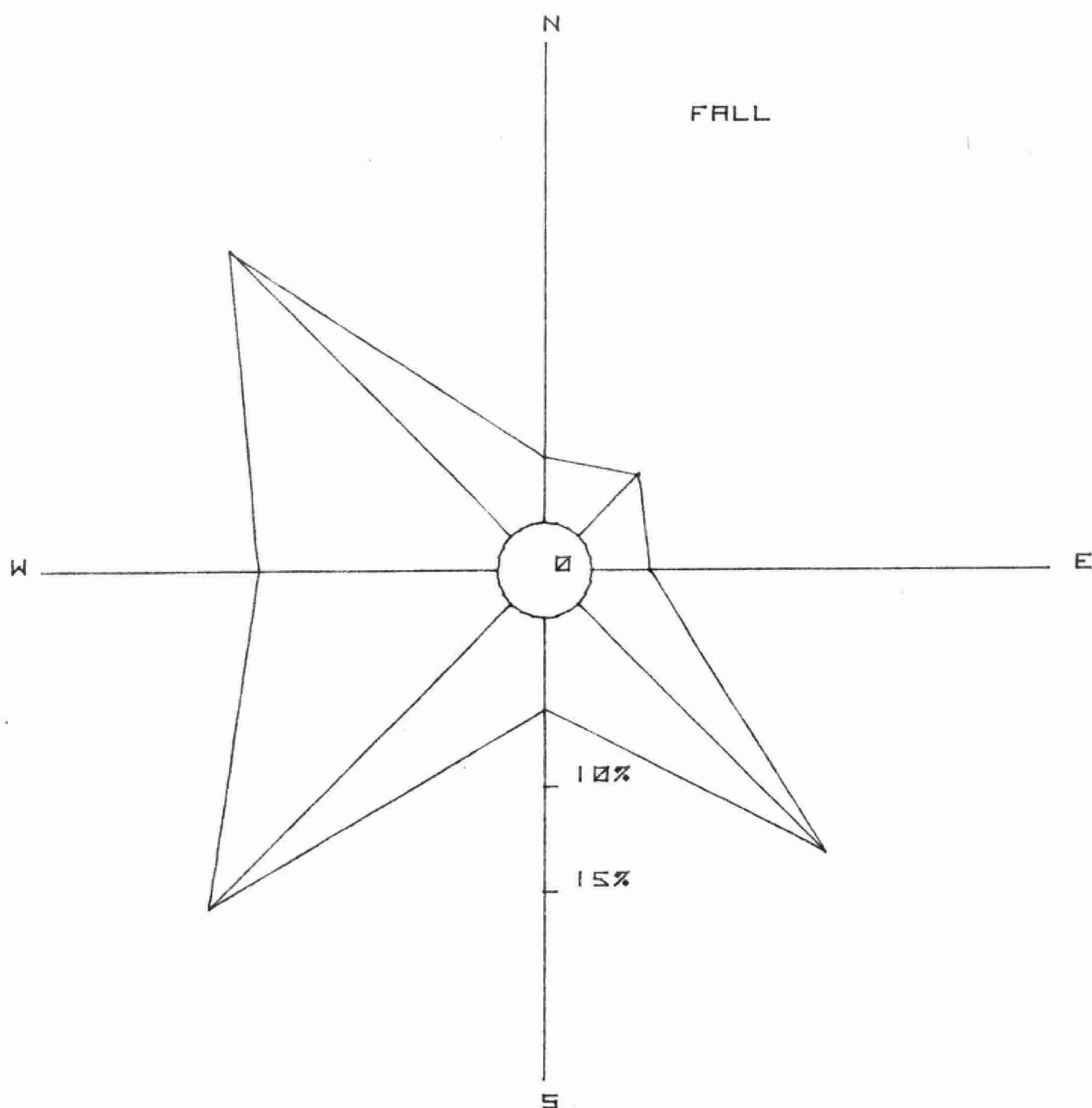


STATION INFORMATION

LOCATED
AT EVANS/ARNOLD STREETS
IN ETOBICOKE
HEIGHT 92.3M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
13	8	12	7	11	18	15	14	0

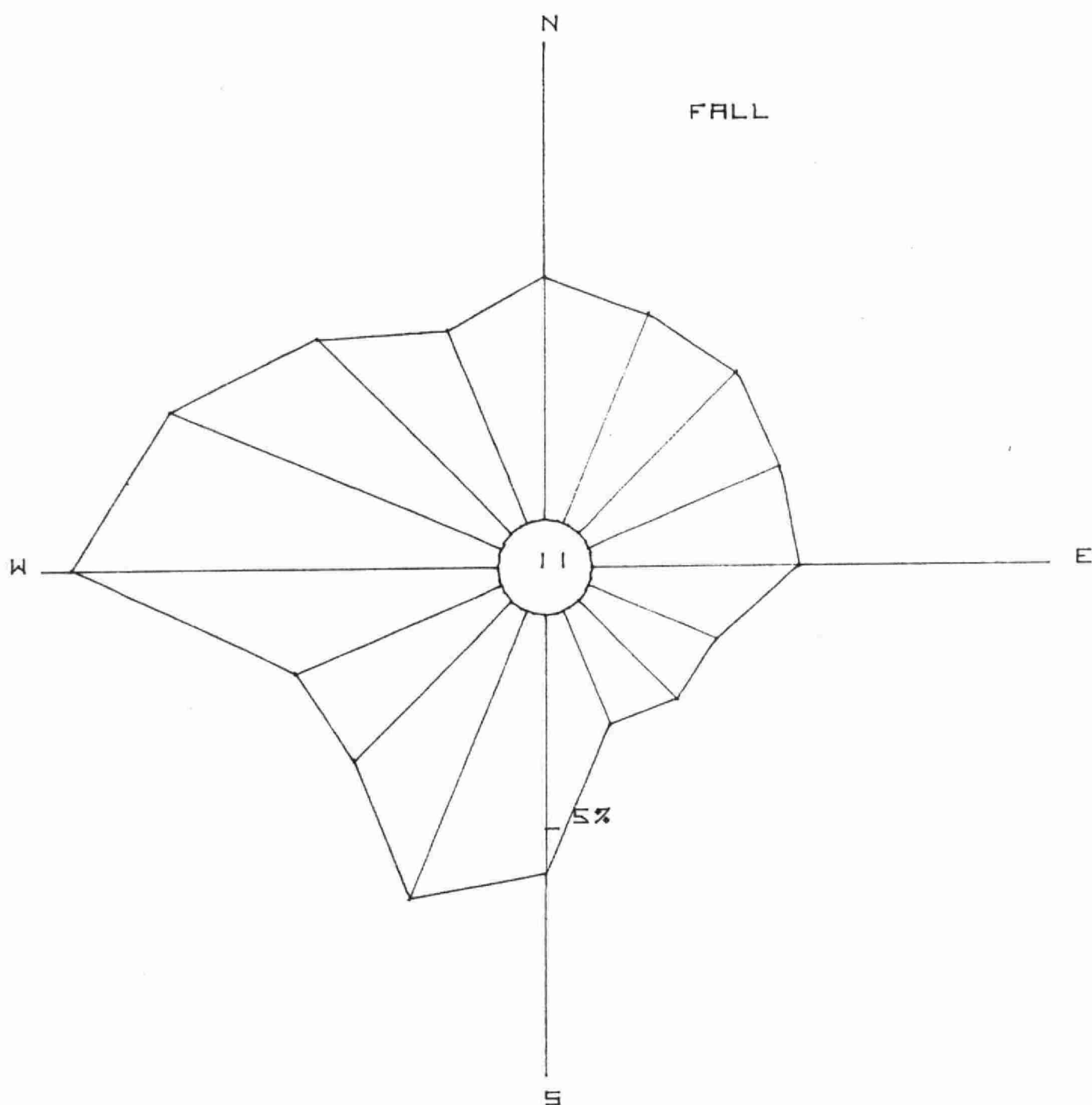


STATION INFORMATION

LOCATED IN ROLLING PARTLY WOODED AREA WITH
ELM TREES 18.5-21.5M HIGH TO N. NW WINDS
EFFECT STN. CAUSING TURBLANCE
HEIGHT 13.2M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	10	10	15	10	10	10	10	0



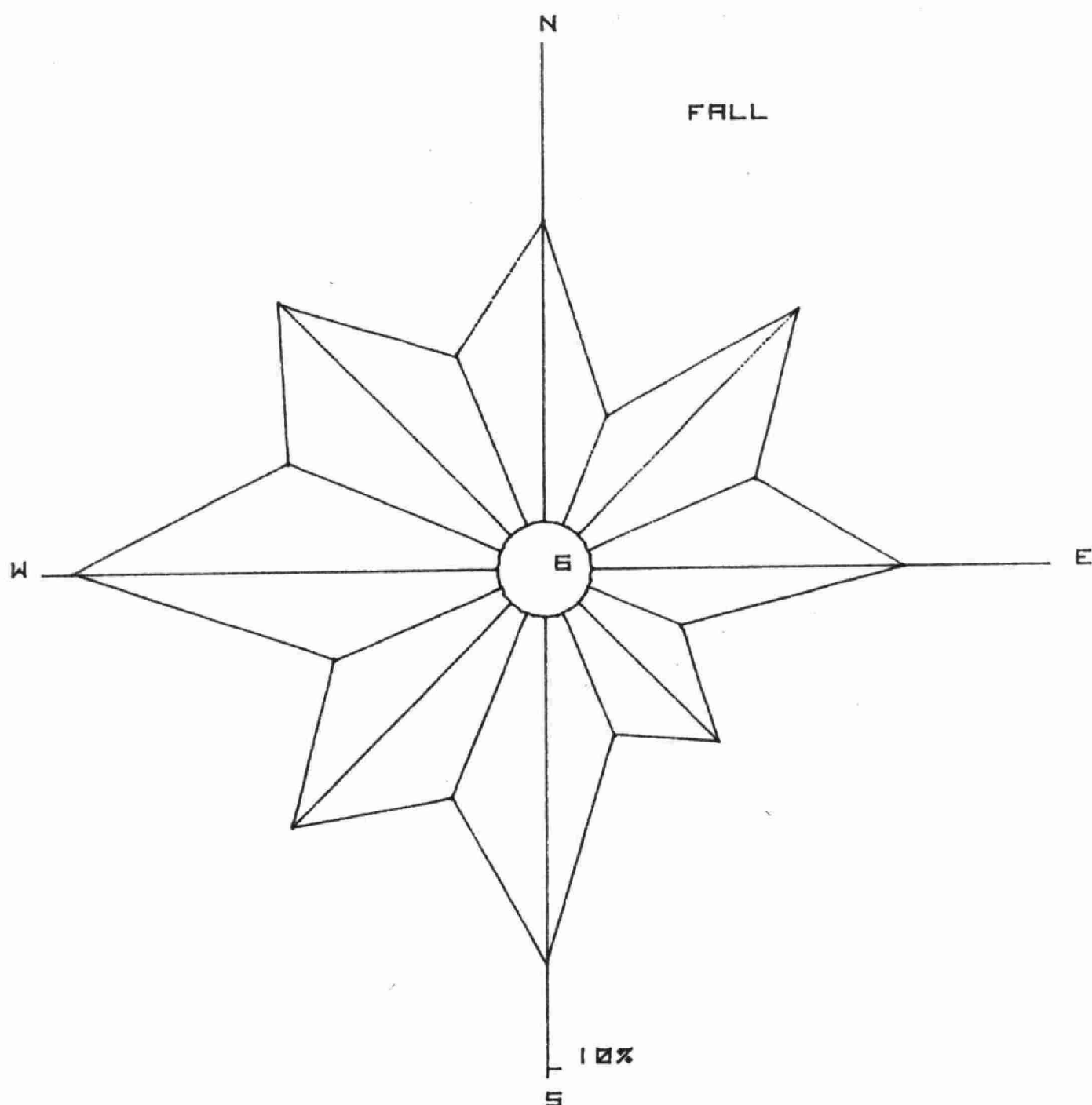
STATION INFORMATION

LOCATED S EDGE TOWN ON W SIDE OF ROAD
 OUT OF TOWN TO HWY 11. AREA IS
 FLAT WITH NUMEROUS LAKES
 HEIGHT 12.6M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	5	5	5	5	4	4	3	6	7	5	5	9	8	6	5	11

GORE BAY (AES) 1955-1972



STATION INFORMATION

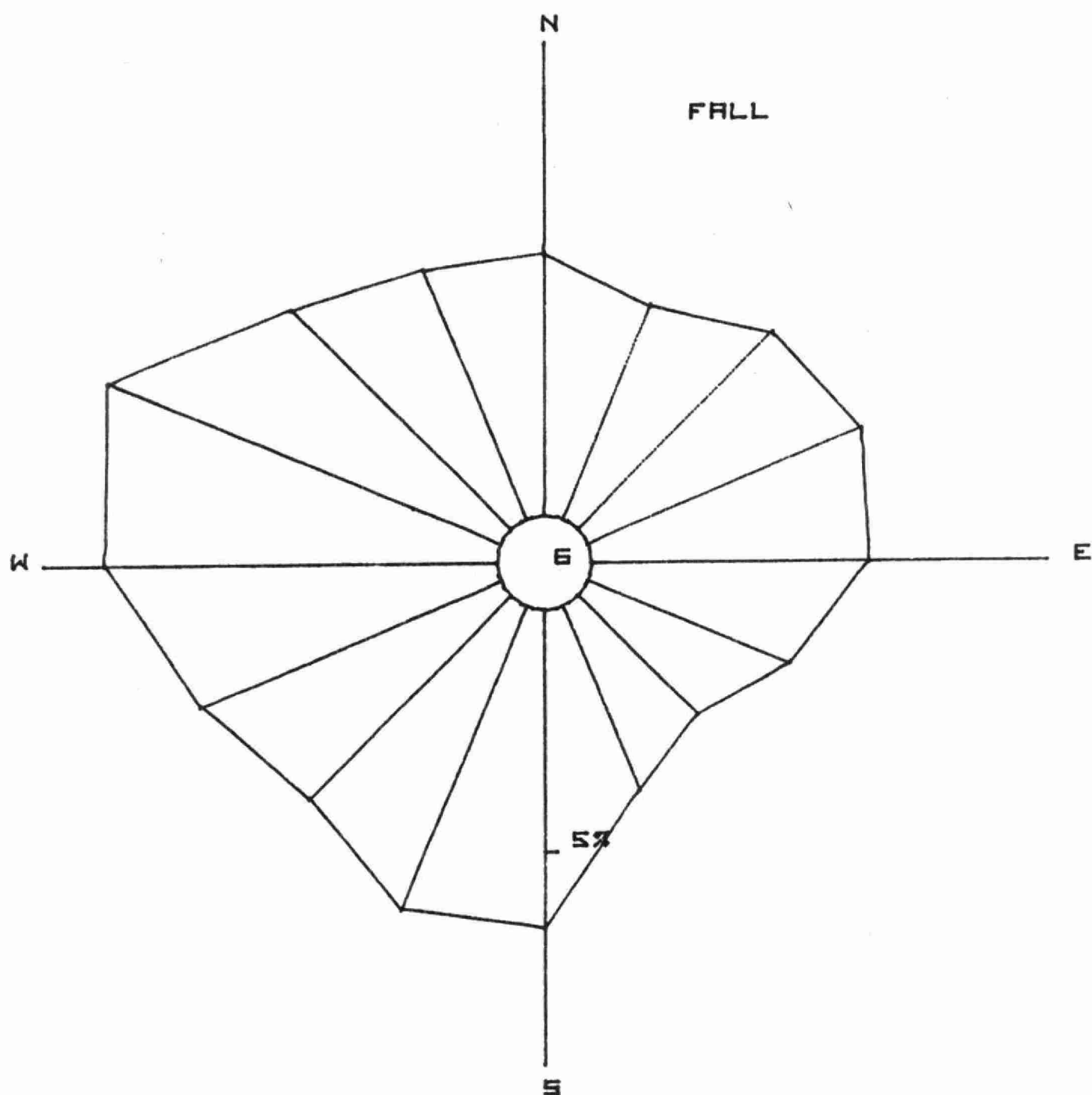
LOCATED 1.2KM TO N AND E IN FLAT AREA,
 ANEMOMETER TOWER IS 3.8M S OF OPS BLDG,
 BASE OF TOWER 6.2M ABOVE GROUND.
 HEIGHT 9.8M

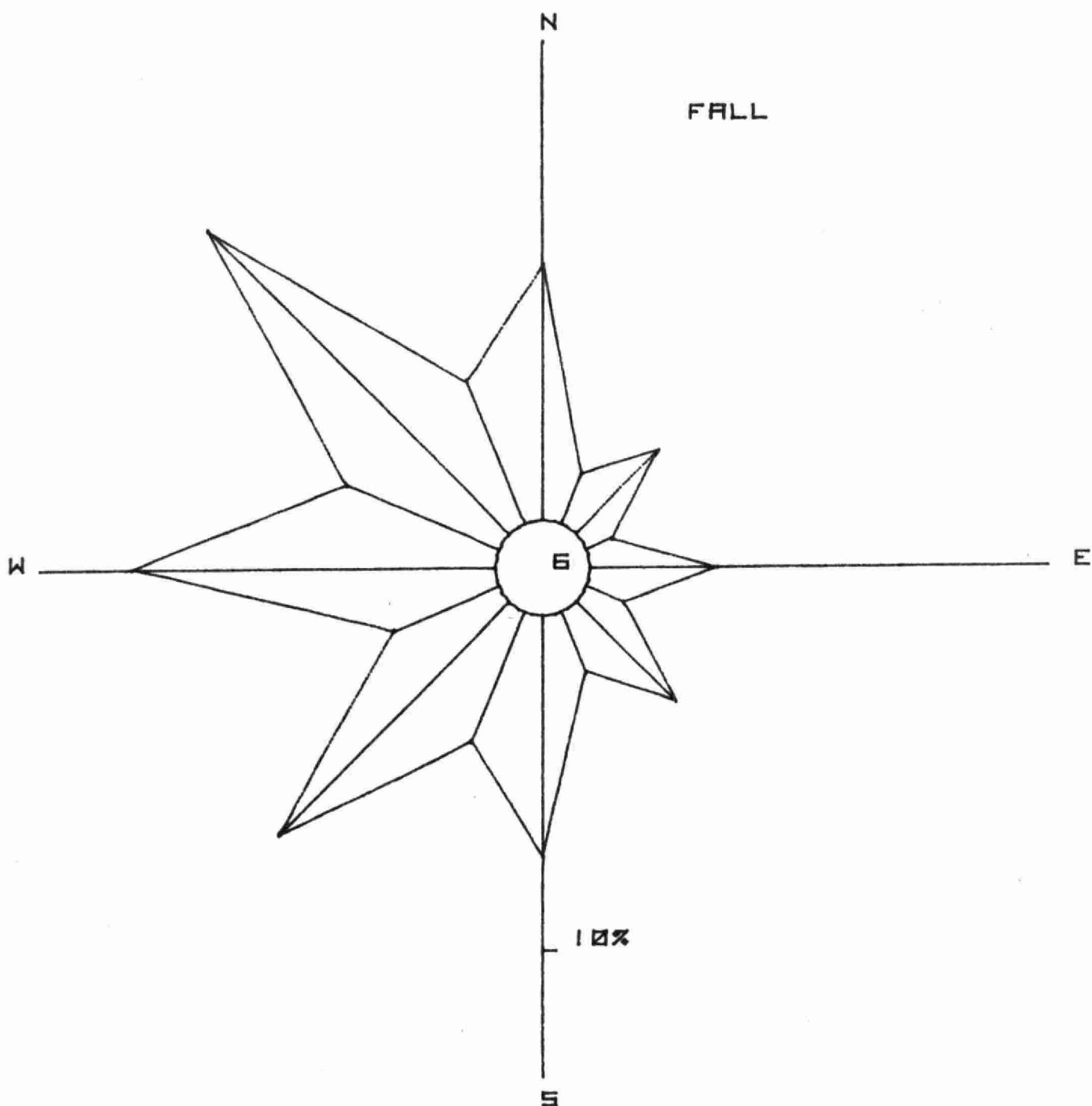
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
7	3	7	5	7	3	5	4	8	5	7	5	10	6	8	5	6

GORE BAY (AES) 1955-1972
(BIASES REMOVED)

26





STATION INFORMATION

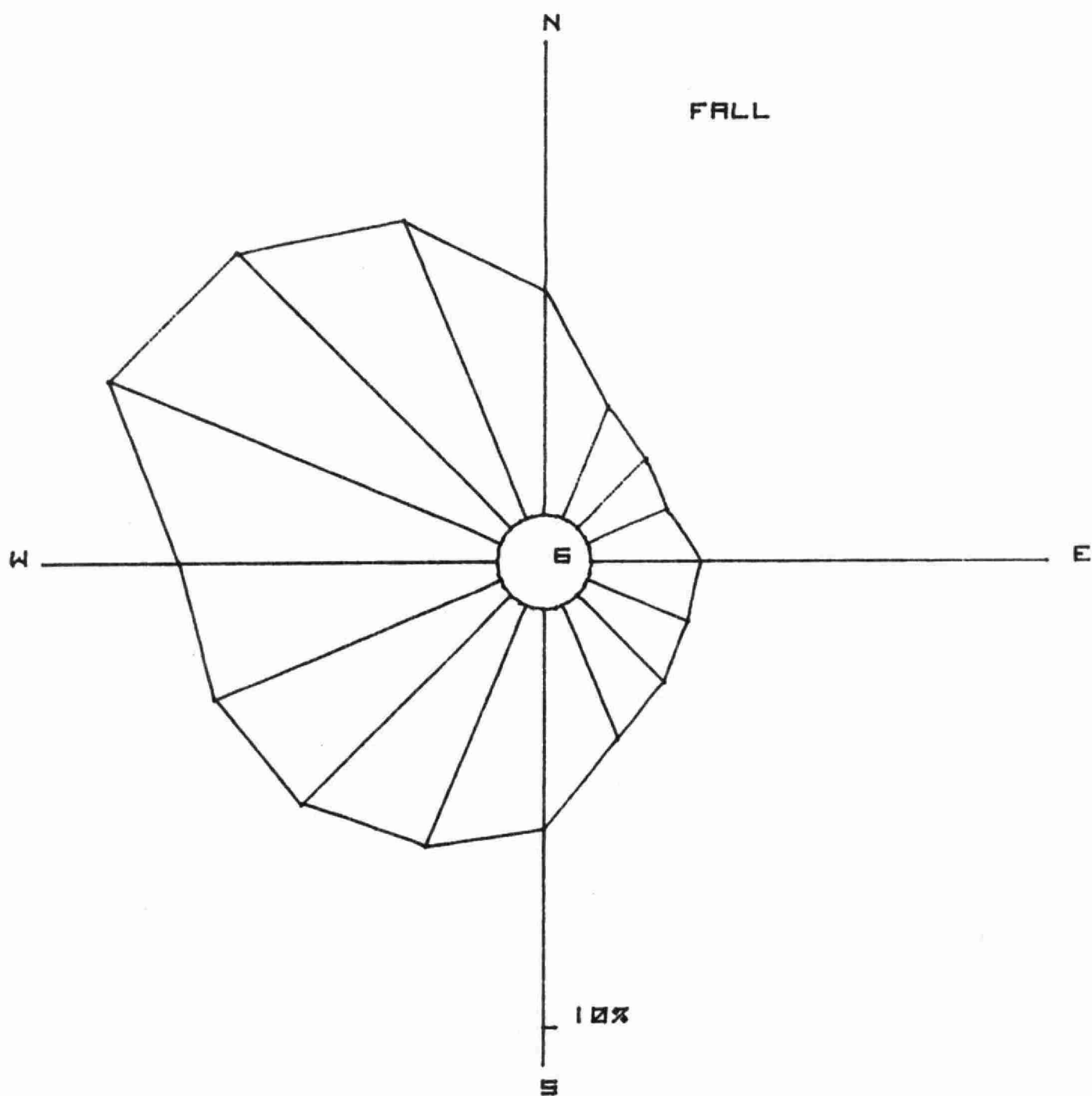
LOCATED 3.2KM NW OF VILLAGE IN WOODED
AREA WITH LOW ROLLING HILLS AND MANY
SMALL LAKES.
HEIGHT. 16M

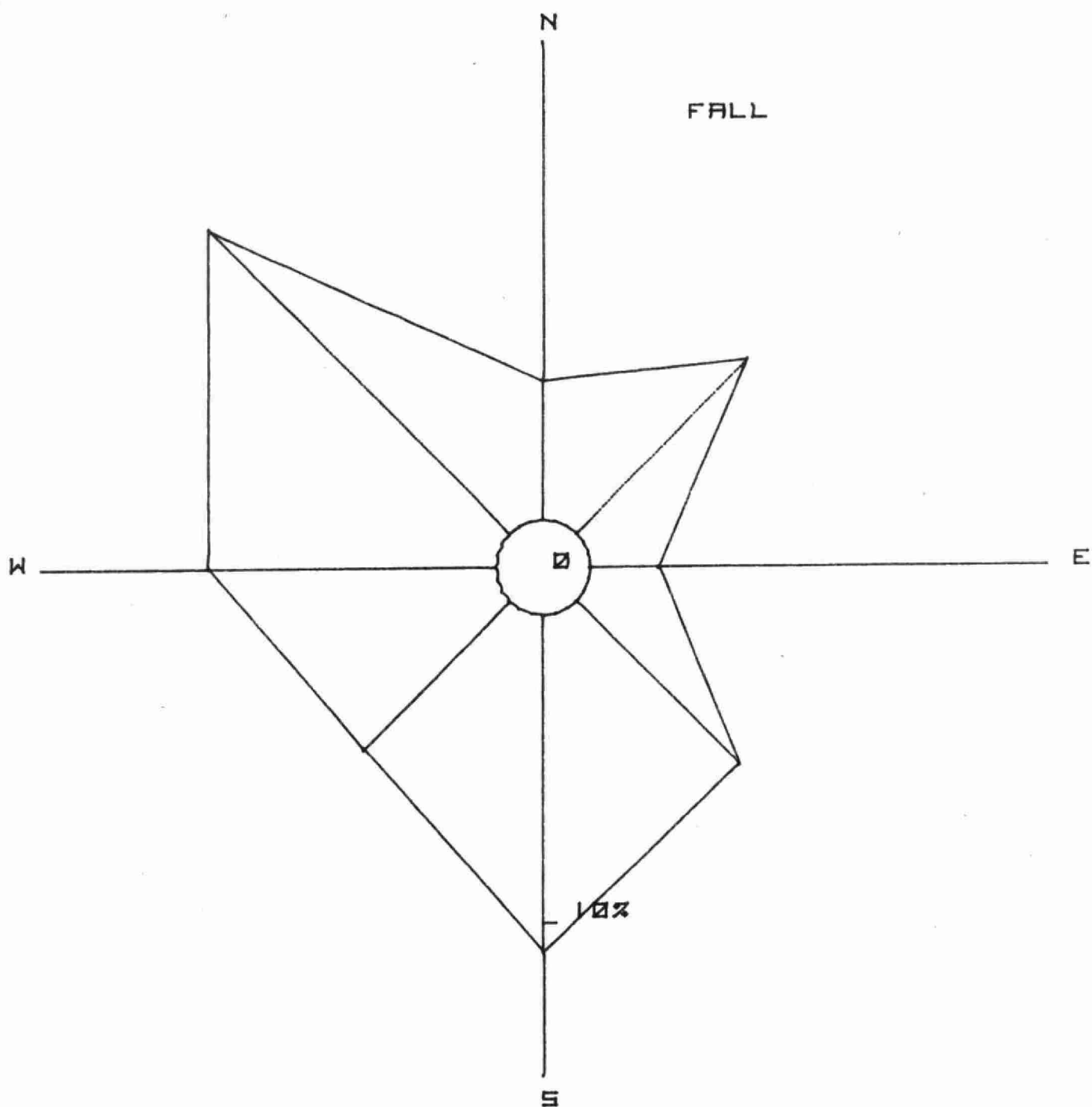
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	3	4	2	5	2	5	3	6	5	10	4	11	6	13	5	6

GRAHAM (A) (AES) 1955-1967
(BIASES REMOVED)

27



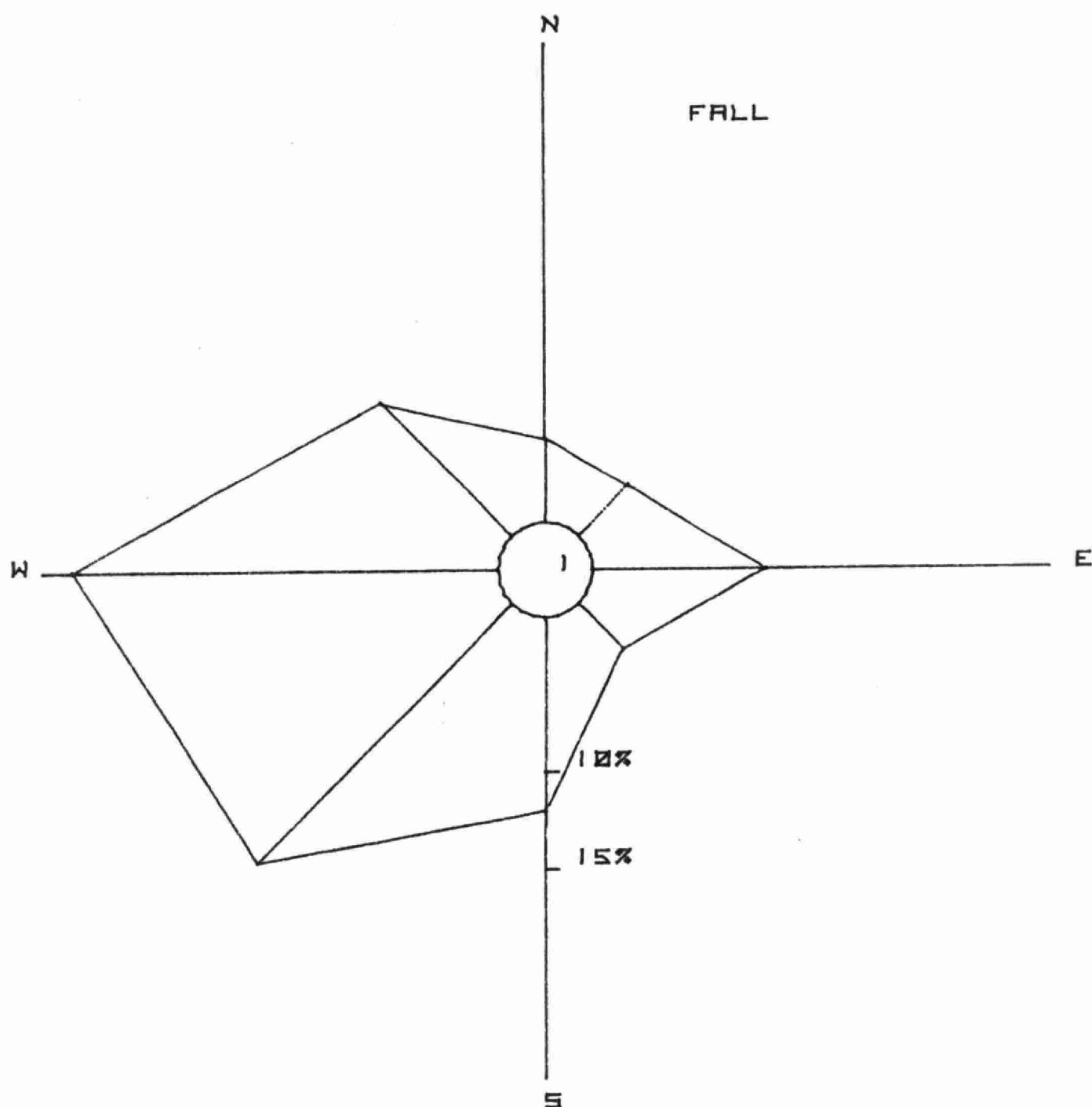


STATION INFORMATION

LOCATED ON LIGHTHOUSE NE ON ISLAND. A HILL
IS IN CENTRE OF ISLAND 3.2KM N FROM LIGHT-
HOUSE. AREA IS WOODED WITH TALL TREES.
HEIGHT 28.3M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
5	8	3	8	11	7	10	14	0

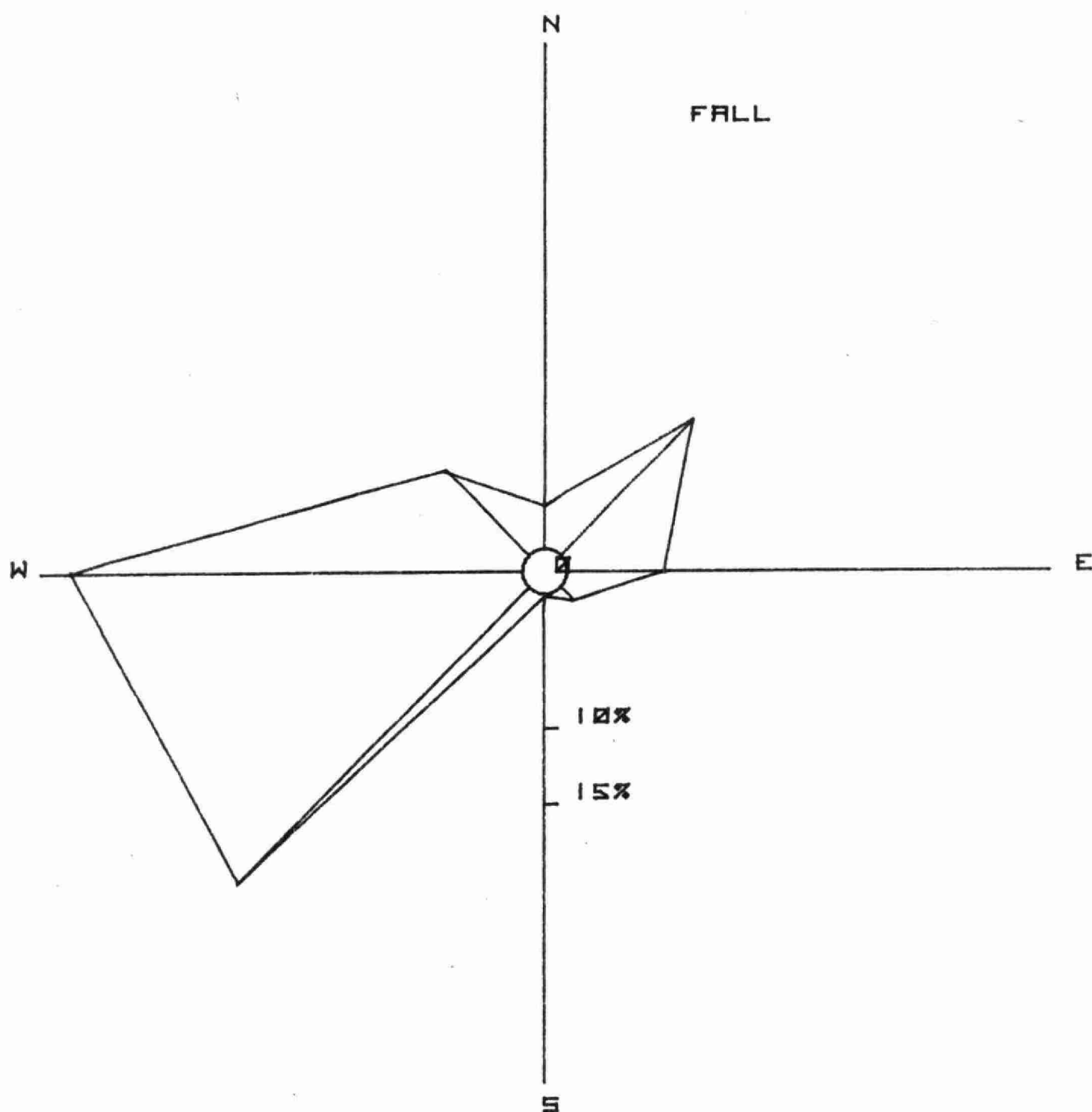


STATION INFORMATION

LOCATED AT DAC AREA FLAT SURROUNDED BY
 TEST PLOTS FOR VARIOUS CROPS, COUNTRYSIDE IS
 ROLLING FARM LAND.
 HEIGHT 10M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	6	11	6	12	21	24	12	1

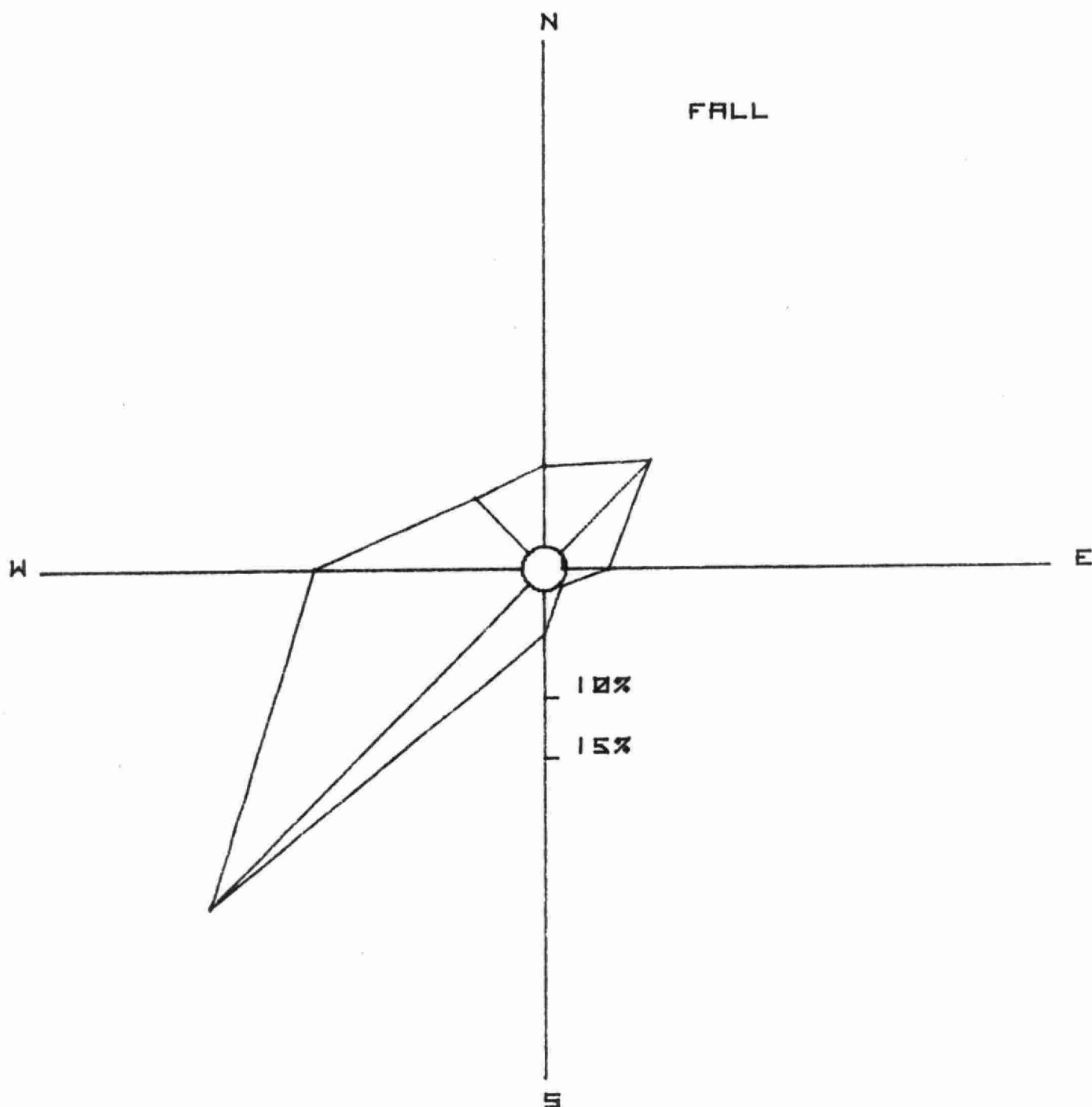


STATION INFORMATION

LOCATED ON PIPE MAST ATOP POLICE BLDG.
 AT DOCK ON S SIDE AT W END OF HARBOUR.
 LAKE ONTARIO 5KM E/ESCARPMENT 3.2KM S.
 HEIGHT 15.7M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
1	1	0	0	0	0	15	0	0

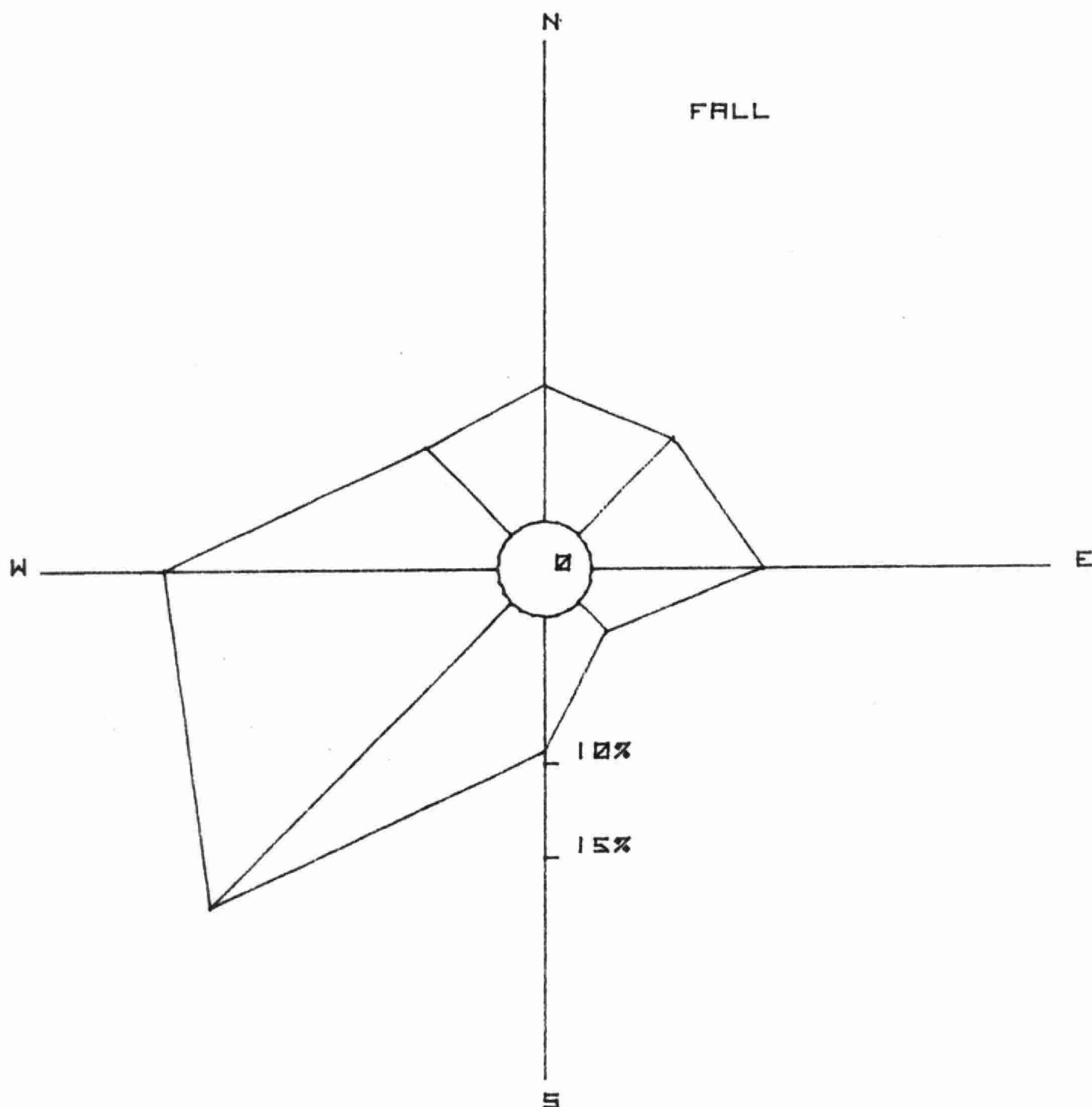


STATION INFORMATION

LOCATED ROYAL BOTANICAL GARDENS ADMIN
BLDG W END AND .4KM N OF HARBOUR,
AREA FLAT.
HEIGHT 17.7M

PERCENTAGE FREQUENCY

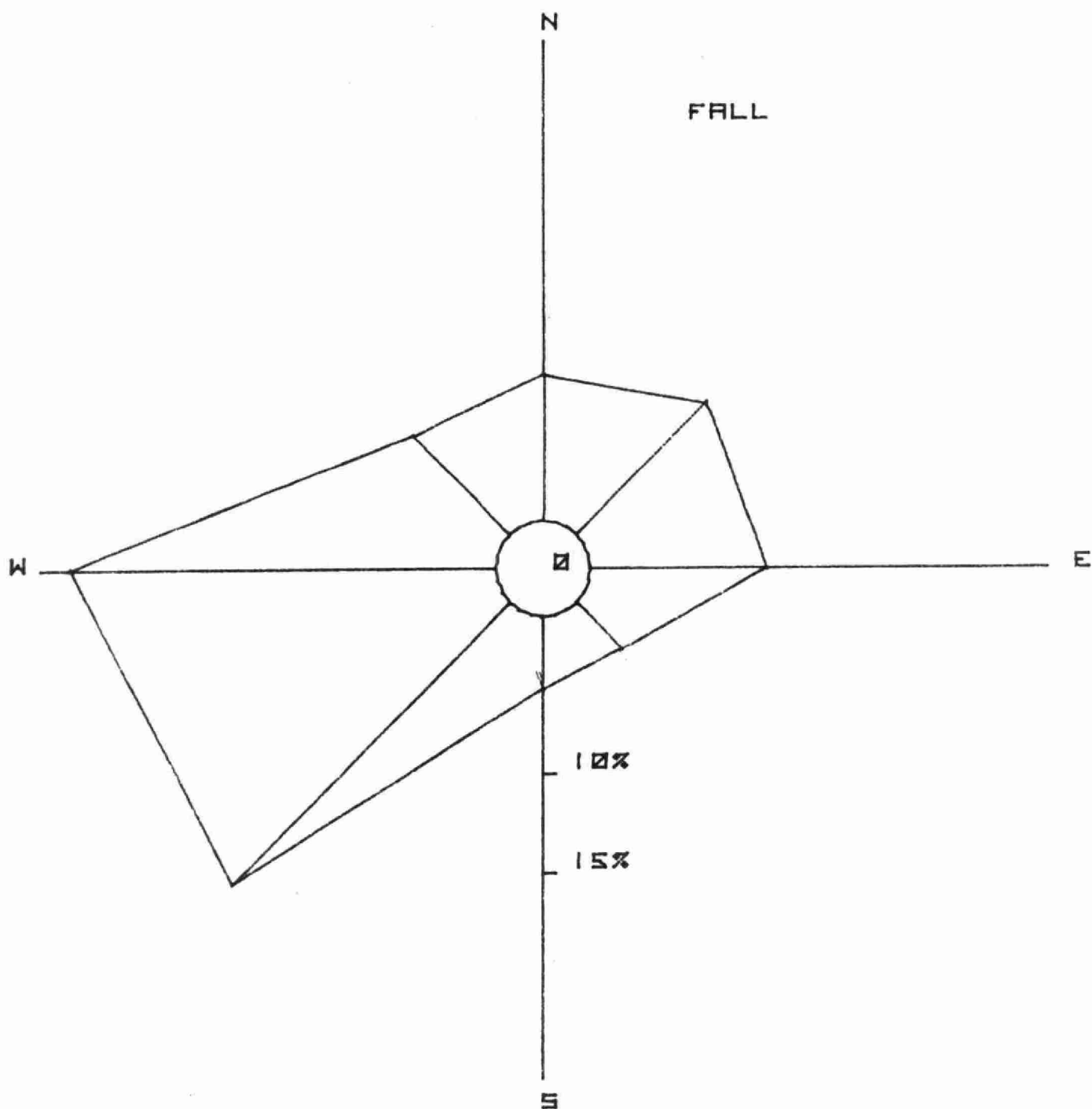
N	NE	E	SE	S	SW	W	NW	CALM
8	12	5	2	5	38	18	8	1



STATION INFORMATION
 LOCATED
 AT BRAMPTON/WOODWARD
 HAMILTON
 HEIGHT 10.1M

PERCENTAGE FREQUENCY

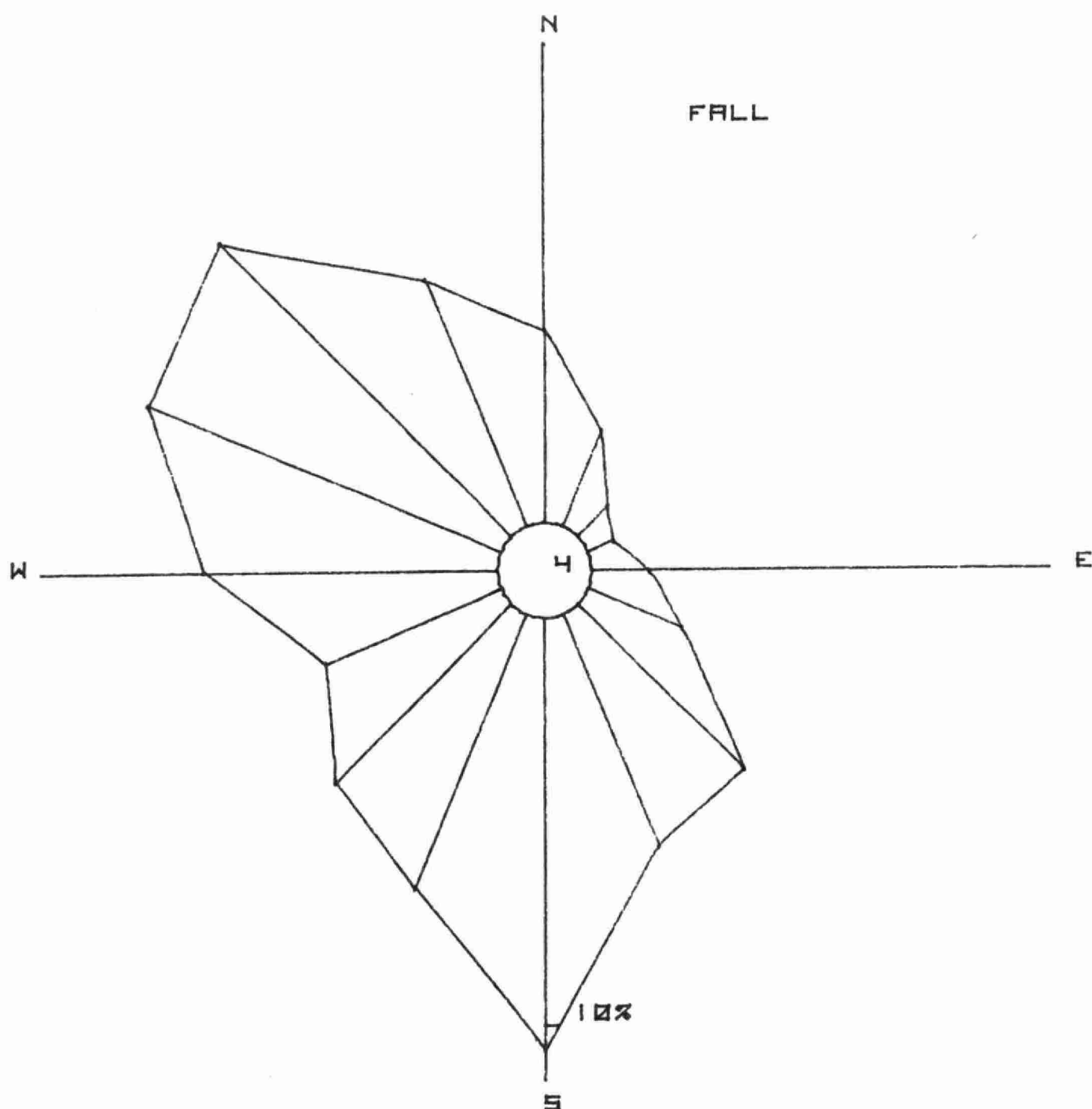
N	NE	E	SE	S	SW	W	NW	CALM
10	10	12	5	10	25	20	5	0



STATION INFORMATION
 LOCATED
 AT BRAMPTON/WOODWARD
 HAMILTON
 HEIGHT 61.6M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	12	11	8	8	22	14	8	0

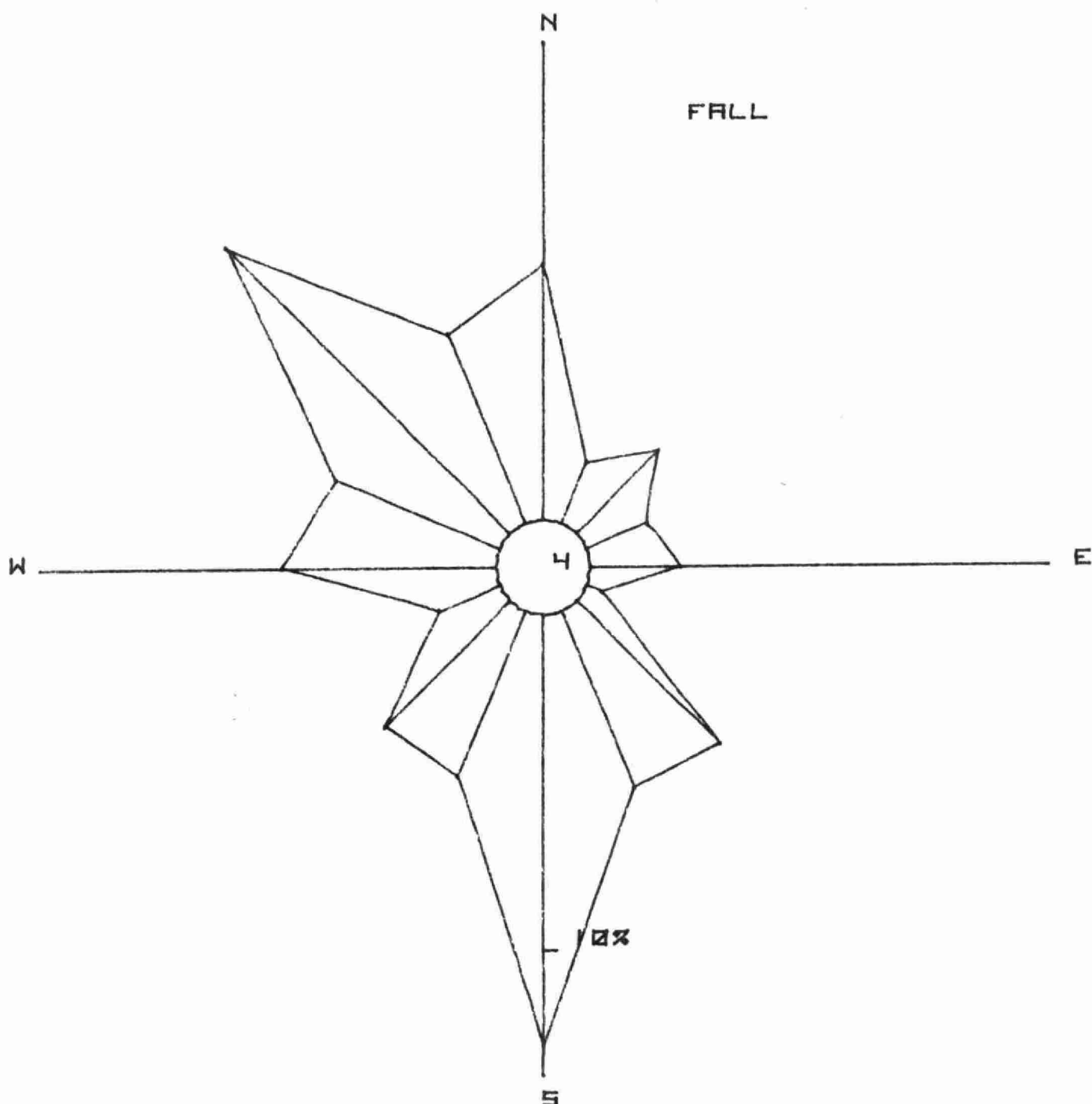


STATION INFORMATION

LOCATED AT THE AIRPORT WITH THE
 U2A WIND DETECTORS ON TOP OF THE
 BEACON TOWER, AREA FLAT WOODED.
 HEIGHT 19.1M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
3	2	2	2	2	3	6	7	11	6	7	5	0	10	10	7	1



STATION INFORMATION

LOCATED 8KM E OF TOWN IN ROLLING
BUSH COUNTRY. NW OF AIRPORT IS A RIDGE
EXTENDING 31M ABOVE FIELD LEVEL.
HEIGHT 10.2M

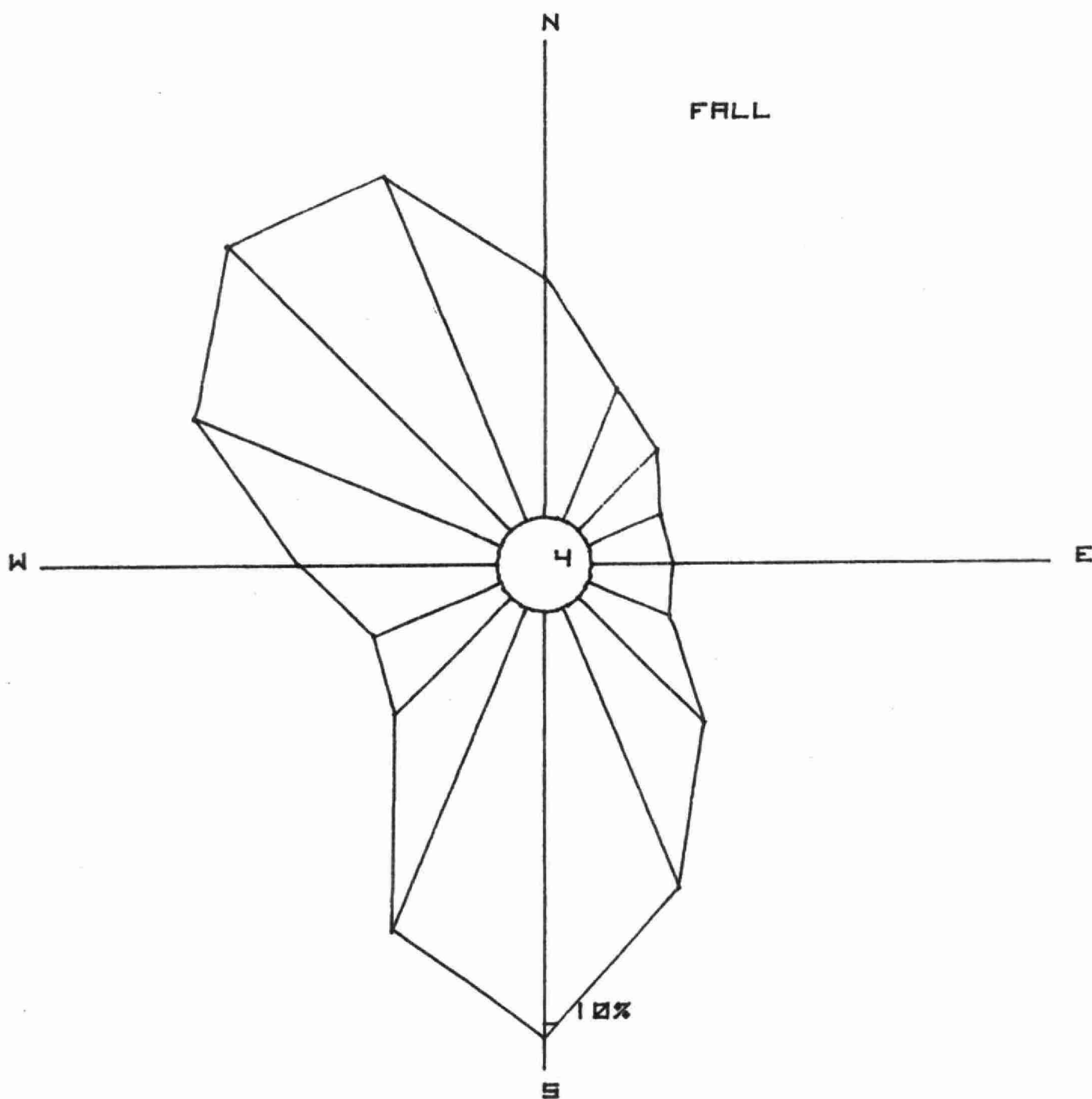
PERCENTAGE FREQUENCY

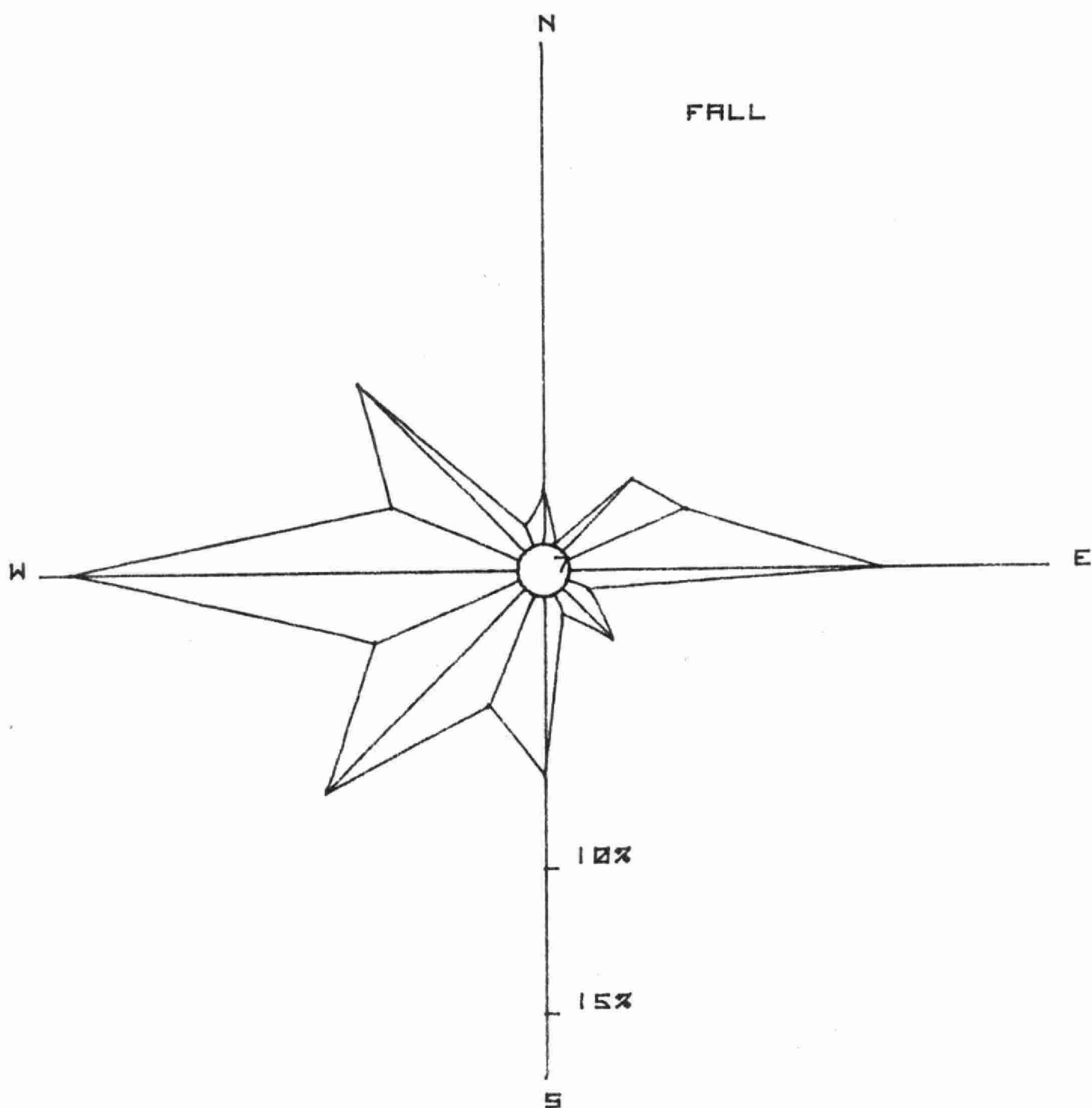
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	3	4	3	4	2	7	6	13	6	6	3	7	6	12	7	4

KENDRA (AES) 1955-1972

(BIASES REMOVED)

36



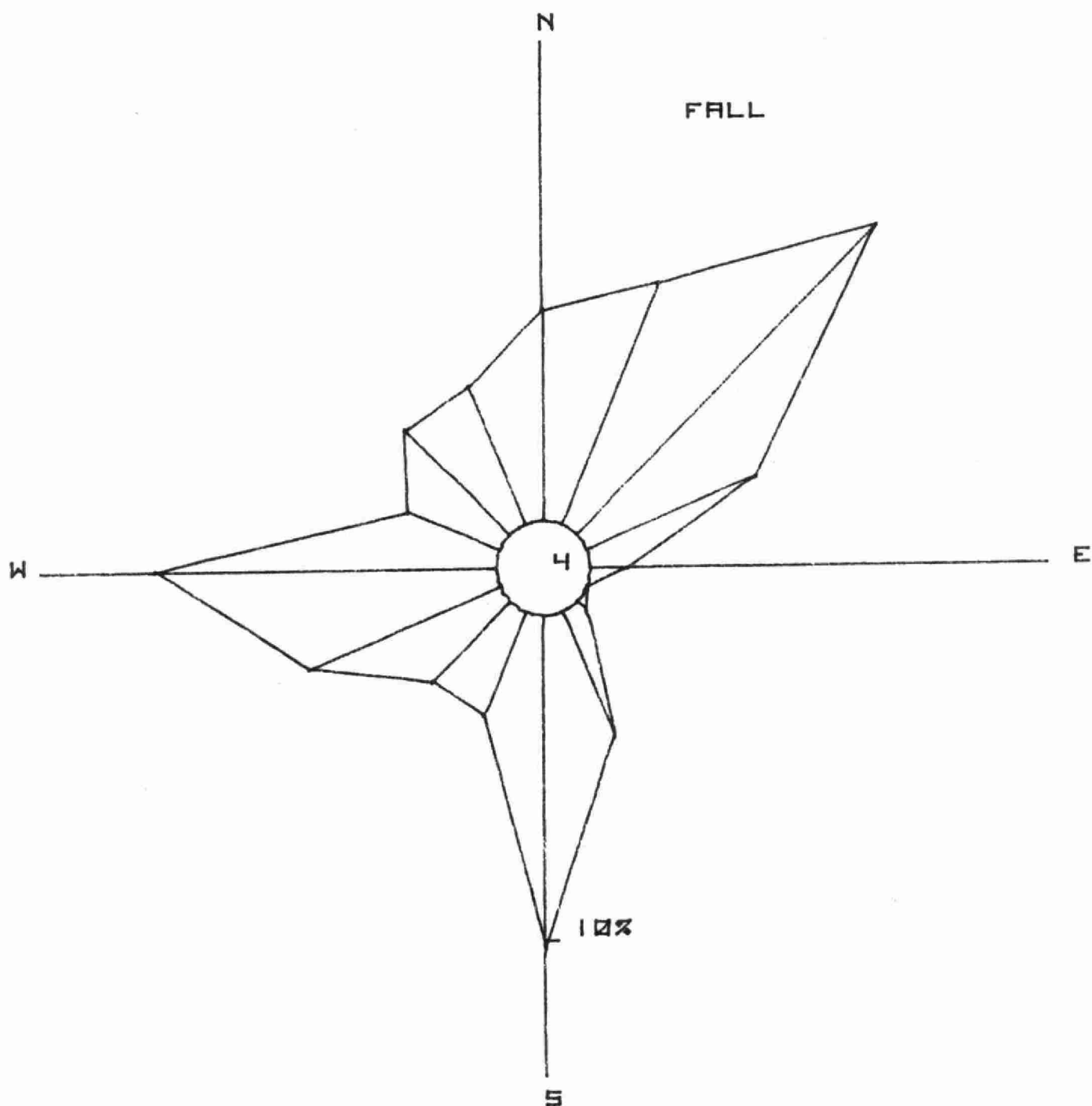


STATION INFORMATION

LOCATED AT AIRADIO SITE NE 2.4KM OF TOWN ON
S SIDE HWY 60 NEAR GOLDEN LAKE, AREA AROUND
STN FIELD IS WOODED. HIGH TREES AFFECT N
WINDS. HEIGHT 17.5M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
3	1	4	5	12	2	3	2	7	5	11	5	15	5	5	2	7



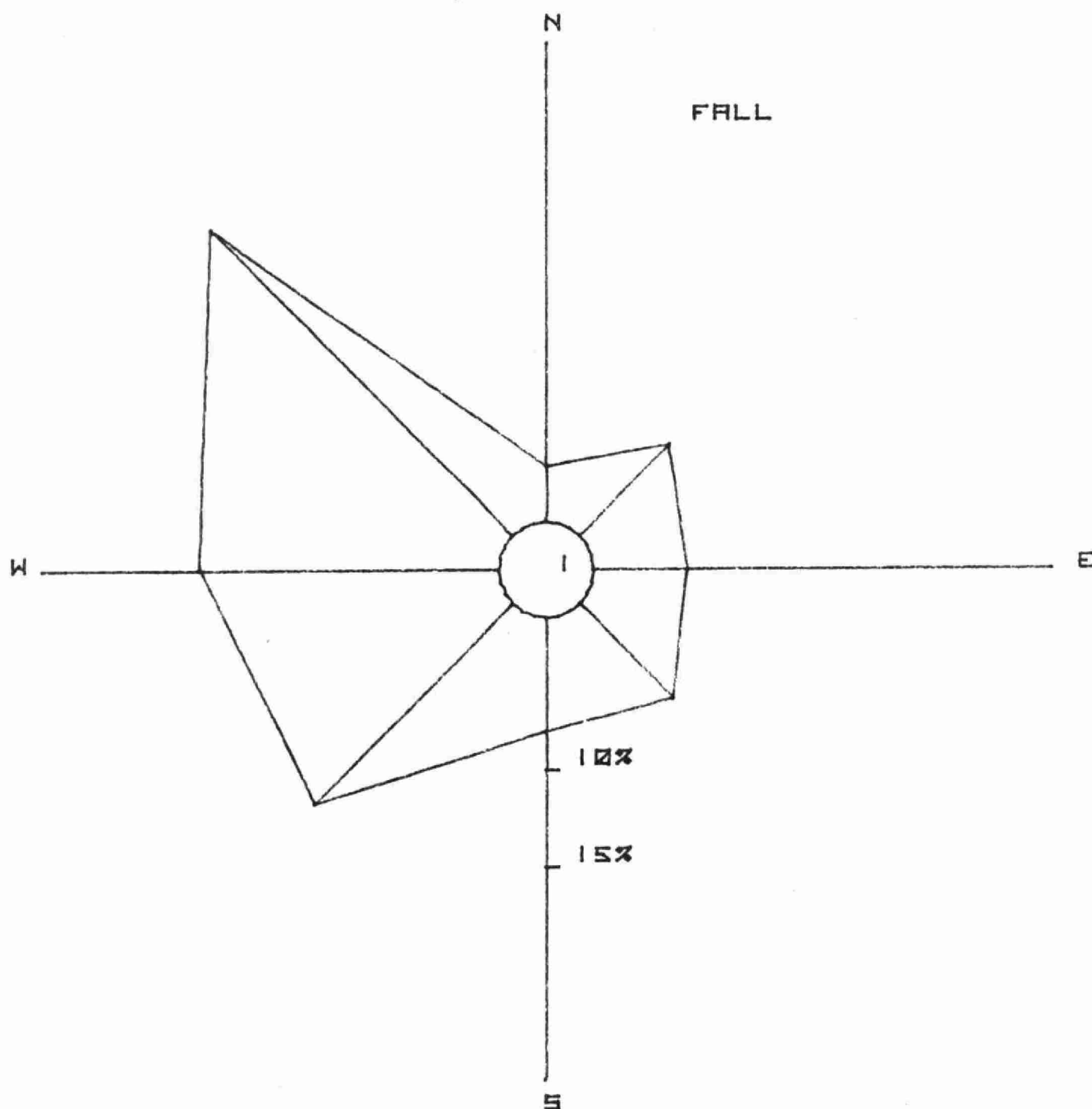
STATION INFORMATION

LOCATED N SHORE OF LAKE ONTARIO 6.4KM E OF KINGSTON. TO THE N AND W IS PARTLY WOODED FARMLAND. THE U2A TOWER IS WELL EXPOSED. HEIGHT 9.8M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
7	8	13	8	2	1	2	5	10	4	4	7	11	4	5	5	4

LANDSDOWNE HOUSE (AES) 1956-1972



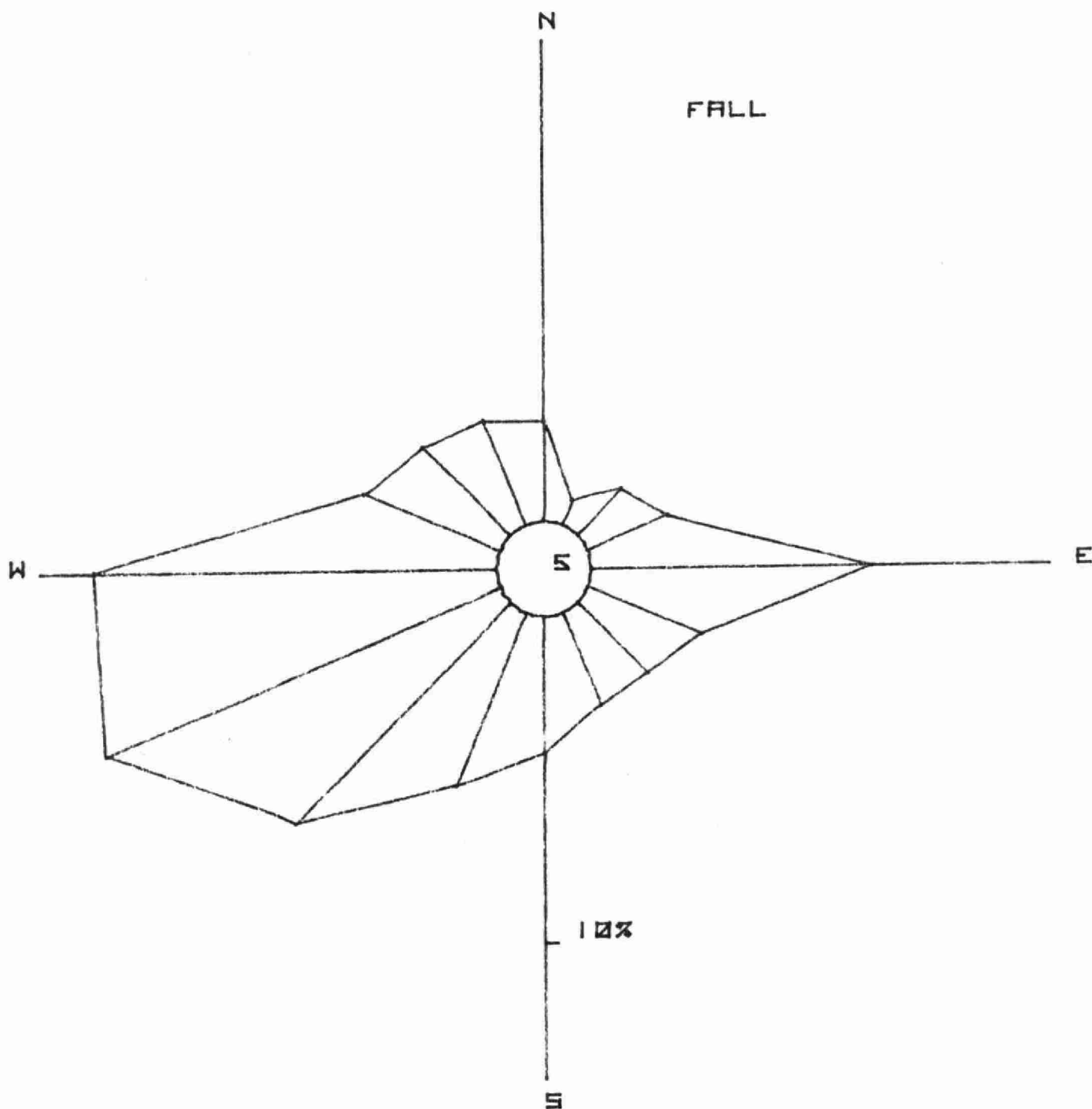
STATION INFORMATION

LOCATED IN SLIGHTLY ROLLING WOODED COUNTRY
 INTERSPACED WITH NUMEROUS LAKES. THERE ARE
 NO OBSTRUCTIONS IN ANY DIRECTION.
 HEIGHT 13.2M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	0	7	0	0	17	10	25	1

LONDON (CRUMLIN) (AES) 1955-1972



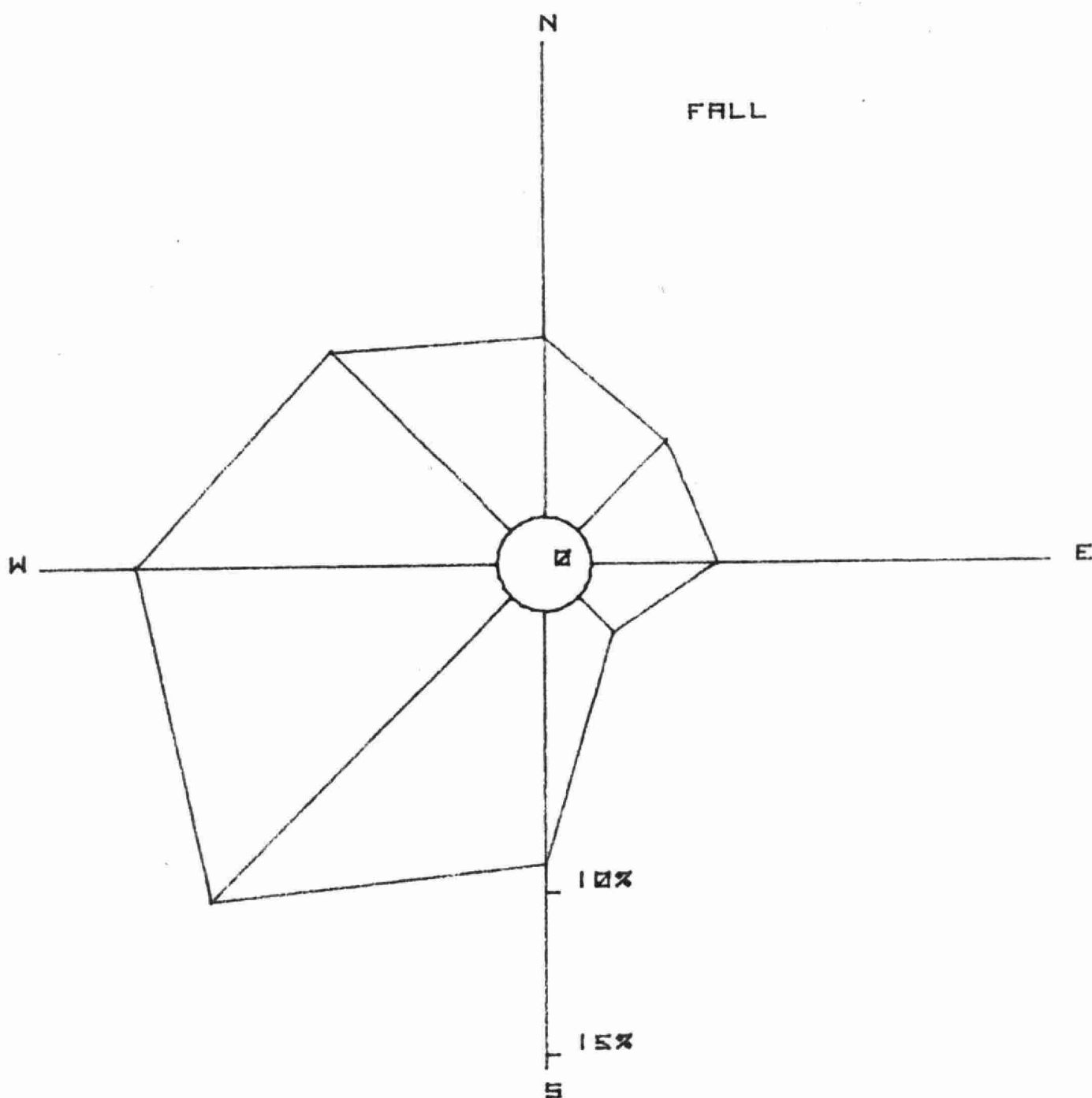
STATION INFORMATION

LOCATED 9.6KM E OF CITY CENTRE AREA IS
 FLAT WITH SLIGHT ROLL IN NW SECTION OF
 RUNWAY COMPLEX
 HEIGHT 10.2M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

LONG POINT (AES) 1958-1972

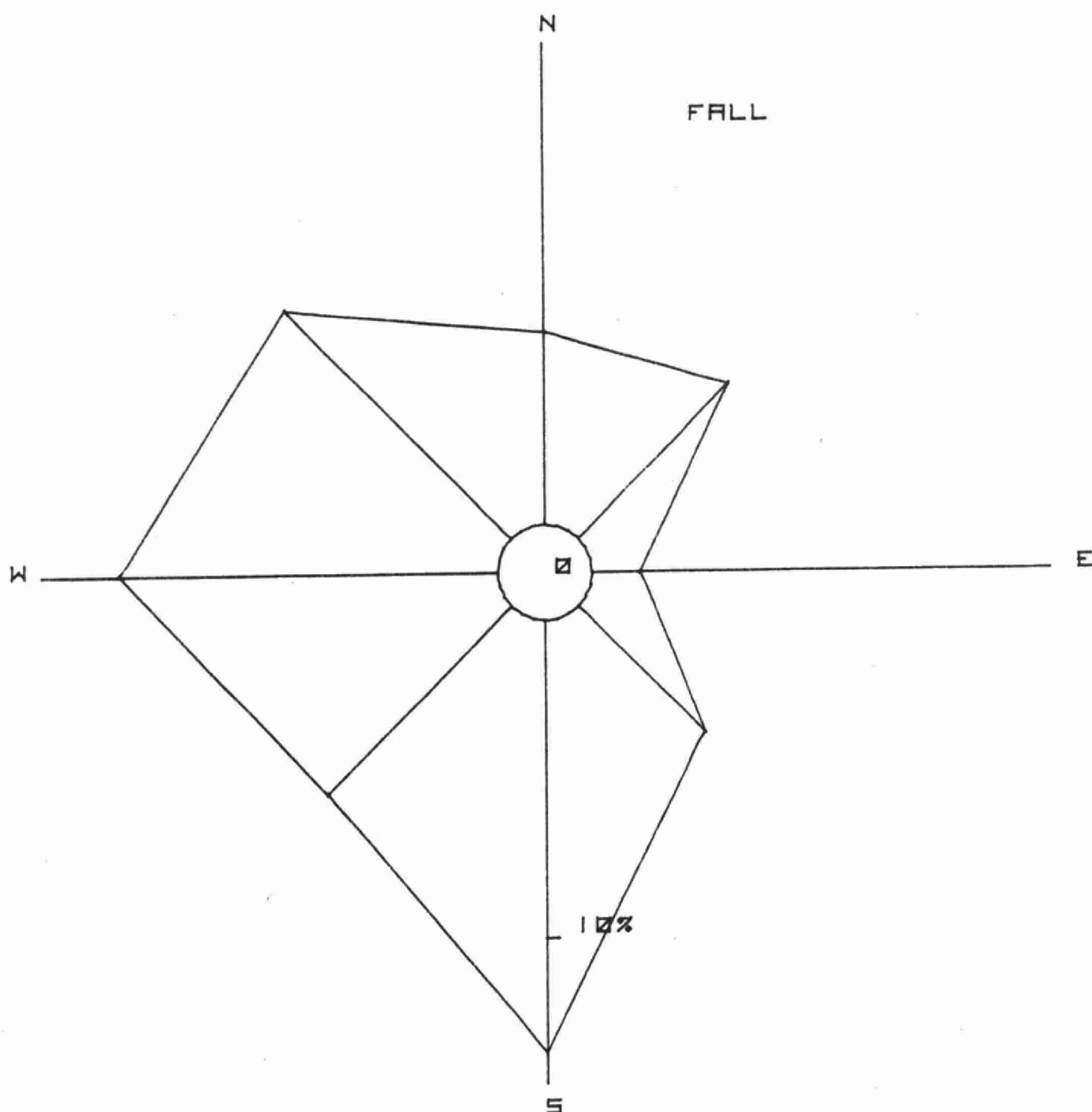


STATION INFORMATION

LOCATED E TIP OF LONG ISLAND PENINSULA ON
SAND BAR 32KM LONG 1.6-4.8KM WIDE. SAND
DUNES ALONG S SIDE.
HEIGHT 32.6M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	8	8	8	8	15	13	8	0



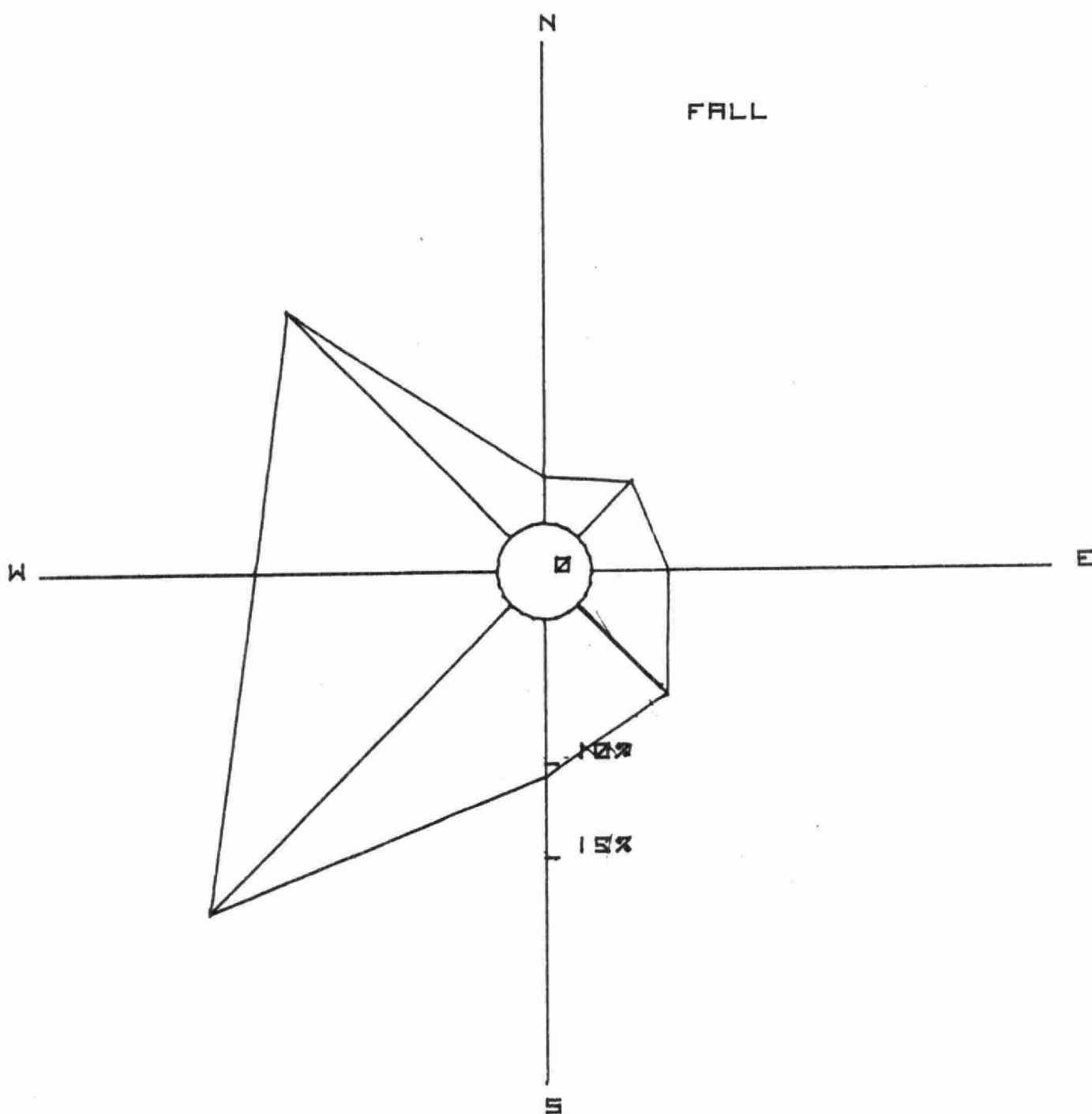
STATION INFORMATION

LOCATED W TIP OF ISLAND 19.2KM E OF
 PRINCE EDWARD PT, ANEMOMETER 190M
 PIPE ATOP LIGHTHOUSE WITH NO OBSTRUCTIONS
 HEIGHT 20.6M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	7	3	6	13	9	12	10	0

MOOSENEE (AES) 1955-1972



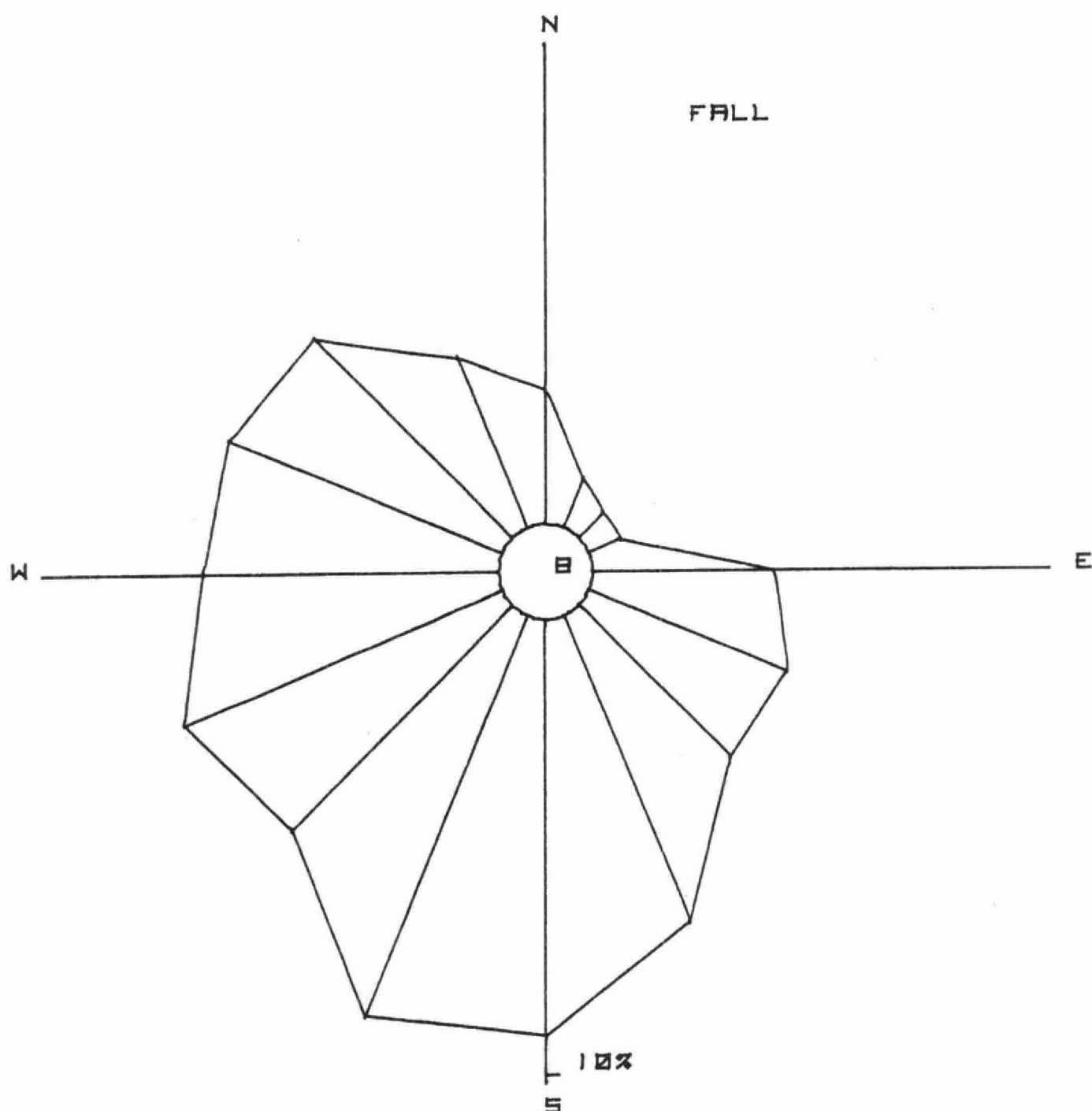
STATION INFORMATION

LOCATED NW BANK MOOSE RIVER 16KM SW JAMES
BAY, FLAT HEAVILY WOODED AREA, TOWER 92M W
OF OPERATIONS BLDG.
HEIGHT 10.2M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	7	7	0	11	25	15	20	0

MOUNT FOREST (AES) 1962-1972

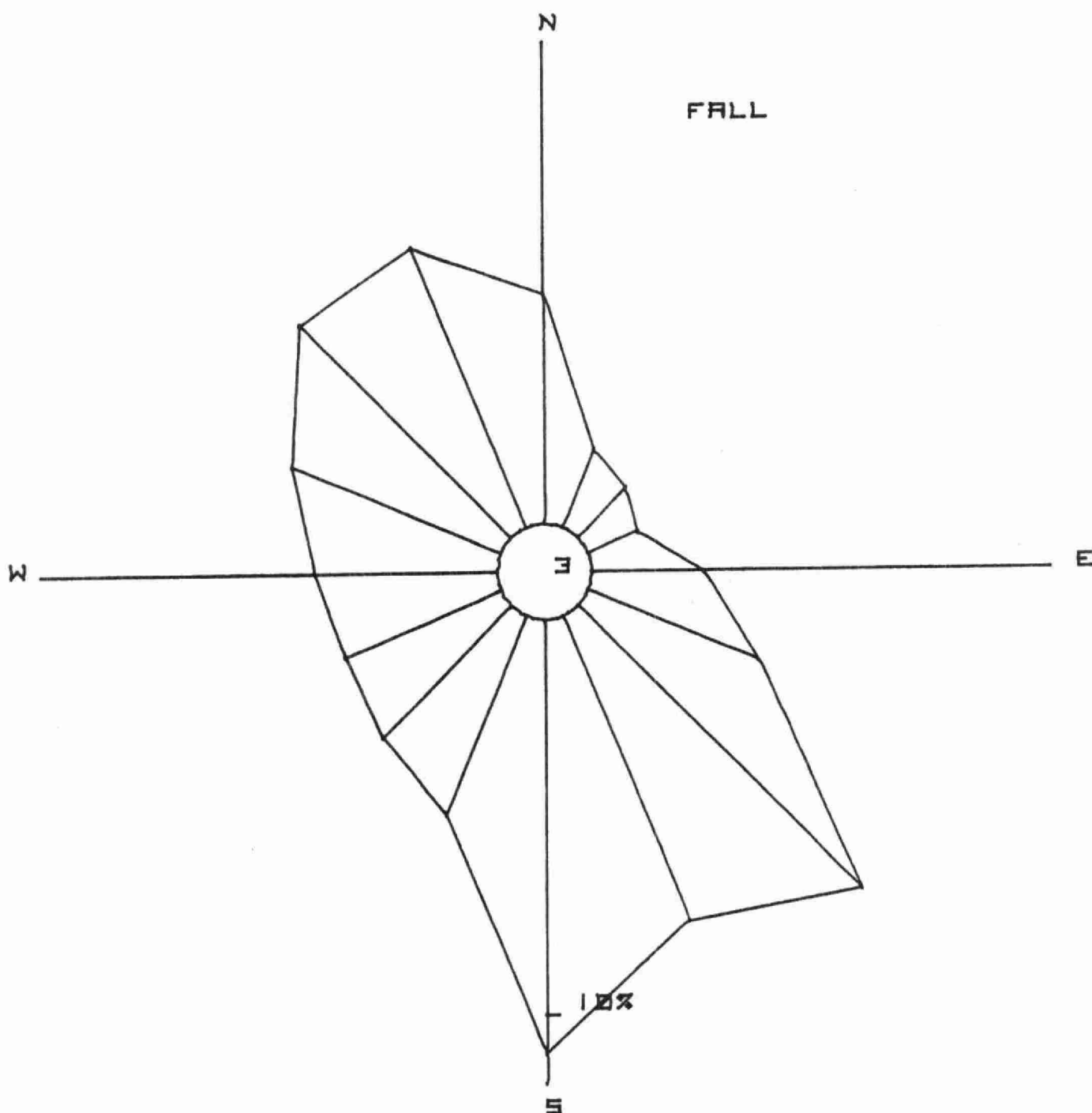


STATION INFORMATION

LOCATED E SIDE HWY 6 ON N EDGE D TOWN N OF
 CN TRACKS, RISING SLIGHTLY TO THE NE AND FLAT
 NE THROUGH SE. A 2 STORY BLDG 23.1M TO NW
 COULD CAUSE TURBLANCE. HEIGHT 10.8M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	2	2	2	5	5	5	8	8	10	7	8	7	7	7	5	8



STATION INFORMATION

LOCATED

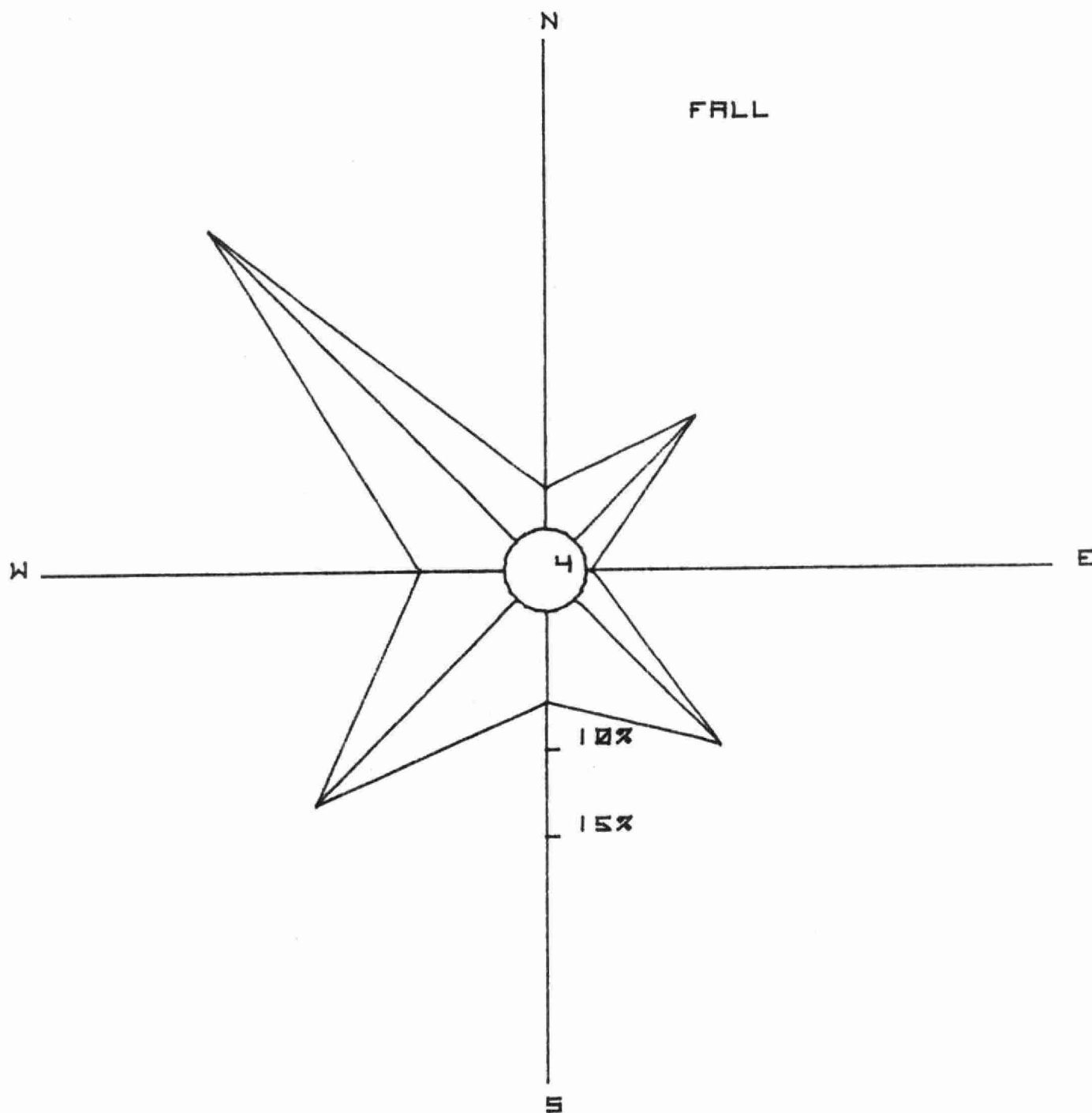
8KM NE OF GRAVENHURST ON HWY 11 IN

ROLLING WOODED AREA

HEIGHT 27.1M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
0	0	0	2	1	0	10	0	11	0	0	0	0	0	0	0	0



STATION INFORMATION

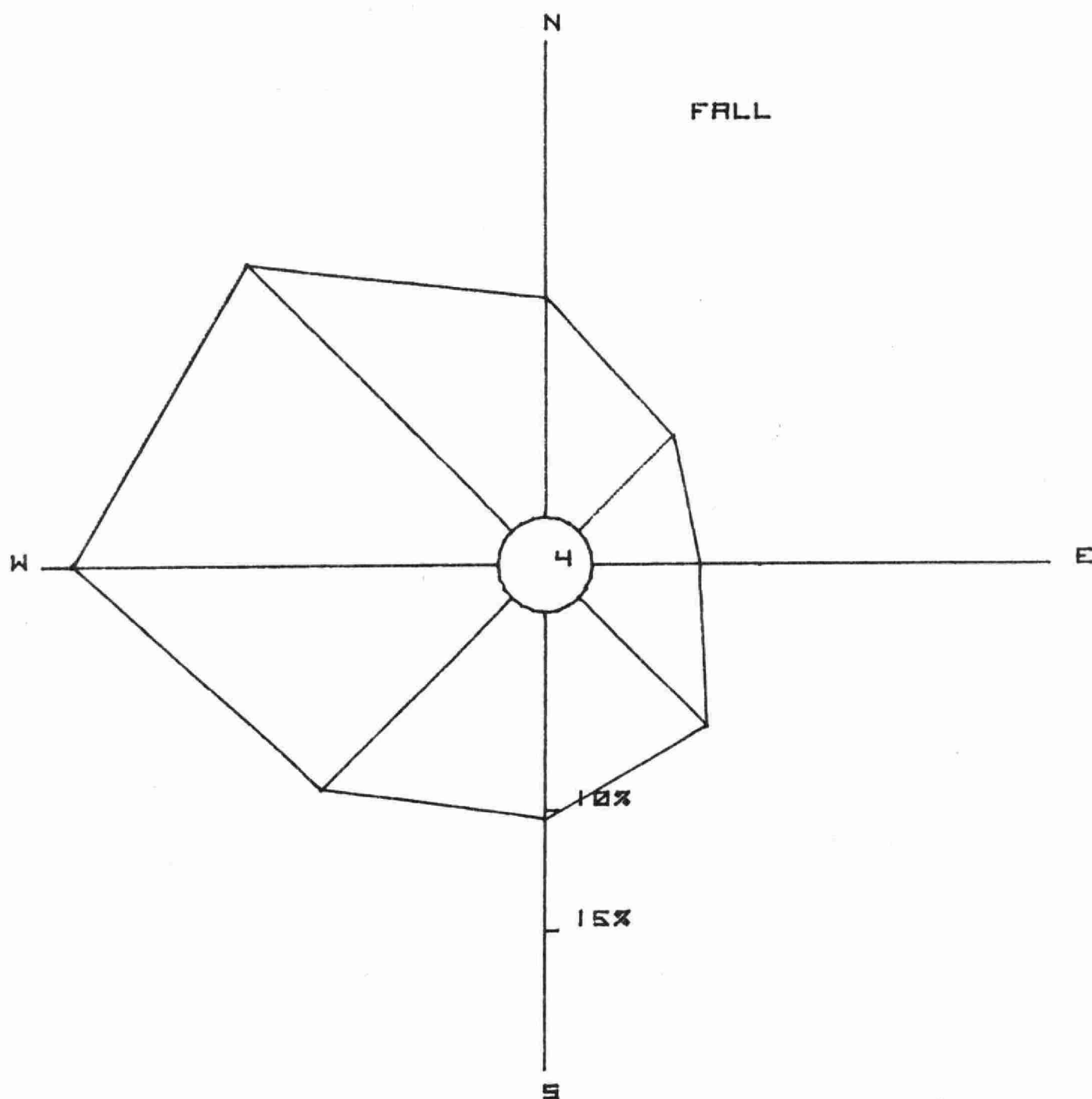
LOCATED IN HEAVILY WOODED AREA, WOODS IN ALL DIRECTIONS. CONSIDERABLE SHELTERING TO E-S AND SW. GOOD SWEEP FROM W AND NW
HEIGHT 13.2M

PERCENTAGE FREQUENCY

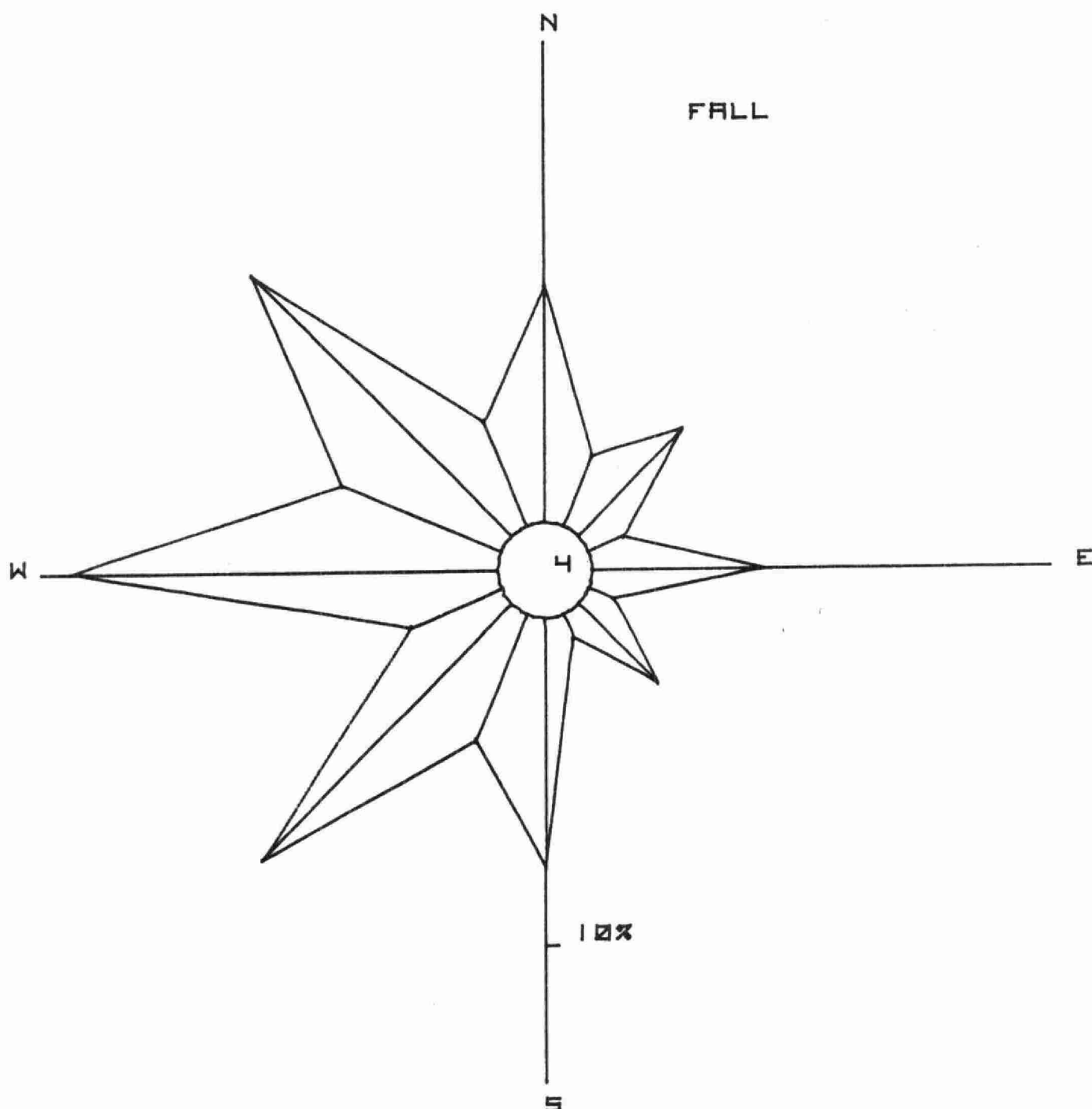
N	NE	E	SE	S	SW	W	NW	CALM
12	15	10	10	10	10	10	10	4

NAGAGAMI (AES) 1964-1969
(BIASES REMOVED)

47



NAKINA (AES) 1955-1967



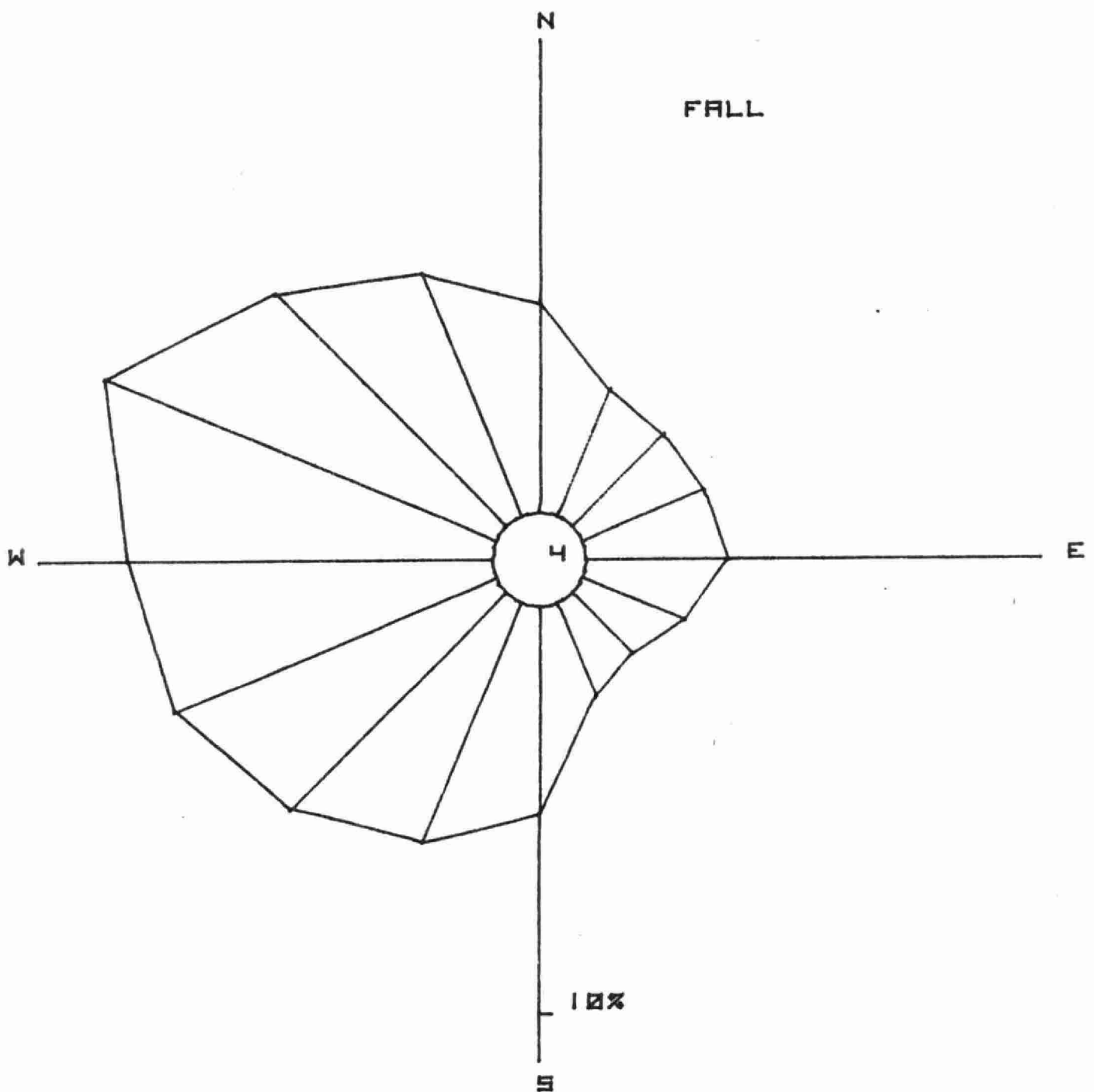
STATION INFORMATION

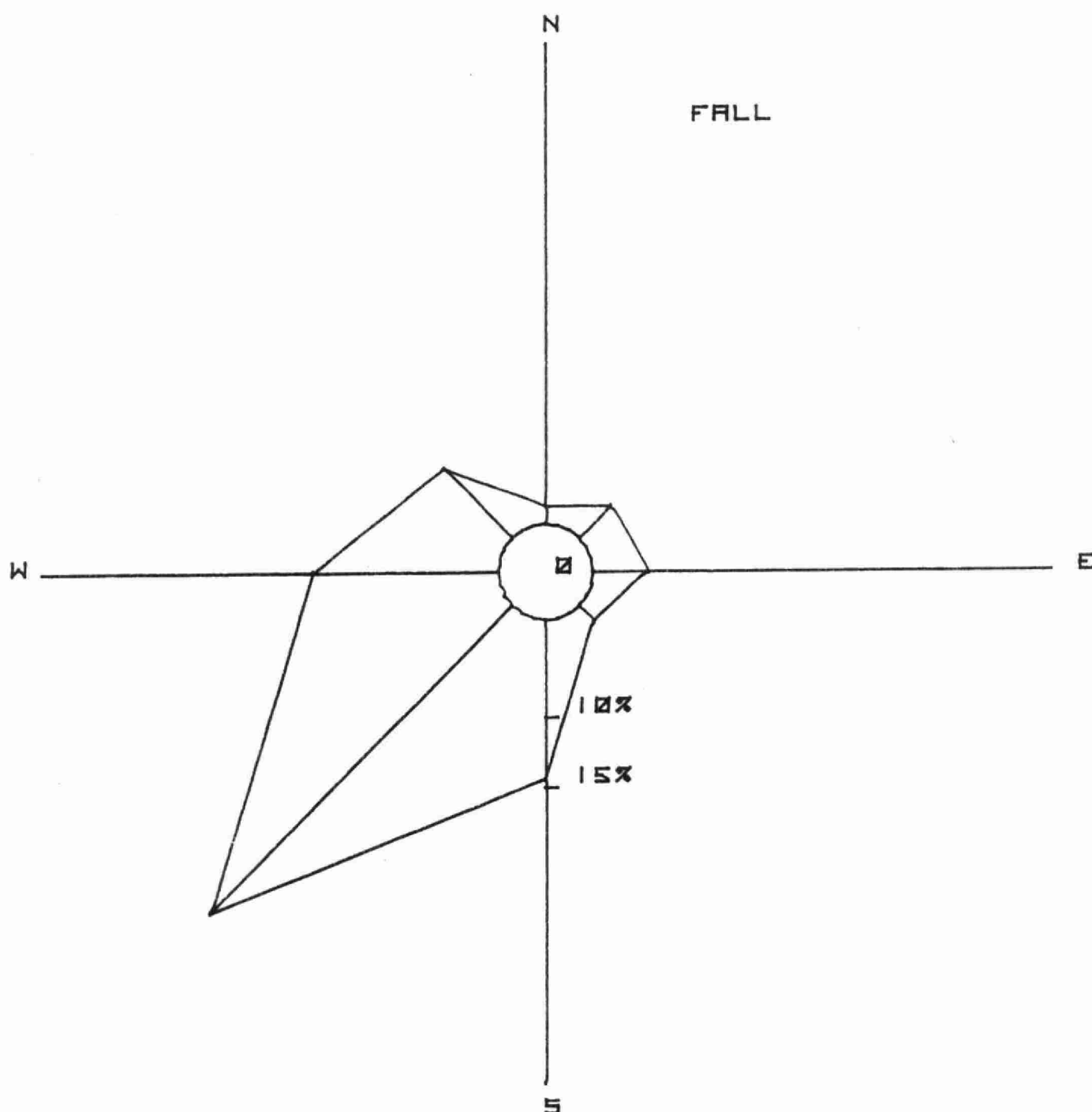
LOCATED AT AIRPORT IN FOREST. COUNTRY HILLY
WITH ODD FLAT AREA. NO OBSTRUCTIONS EXCEPT
N WHICH HAS 9.2-13.8M HIGH TREES
HEIGHT 16M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
0	3	5	2	0	2	4	2	0	5	11	4	13	6	11	4	4

(BIASES REMOVED)



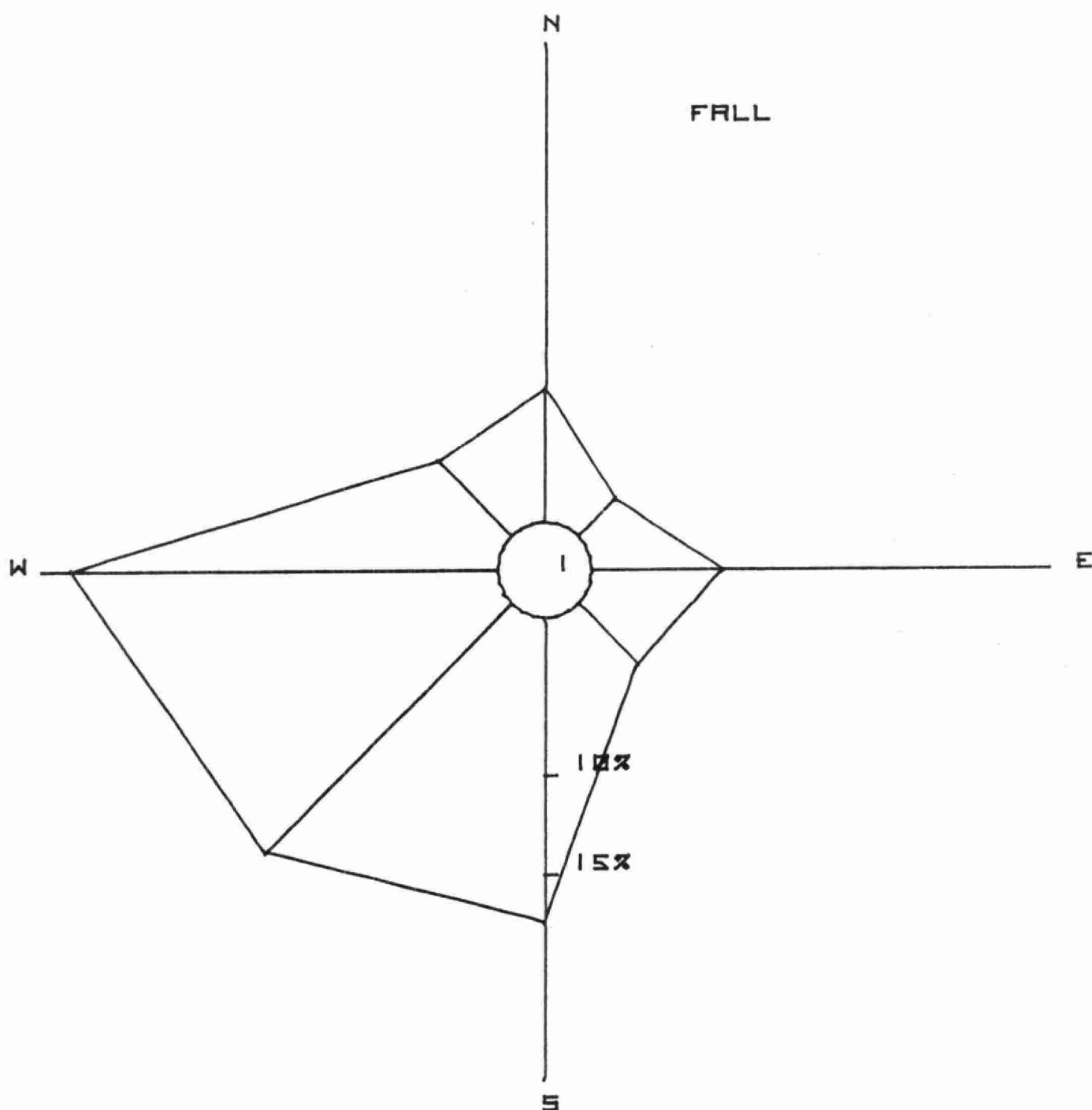


STATION INFORMATION

LOCATED
 ON ROOF OF ST FRANCIS SCHOOL AT
 VICTORIA/LEADER STREETS
 HEIGHT 10.1M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
5	7	7	5	15	34	17	10	0

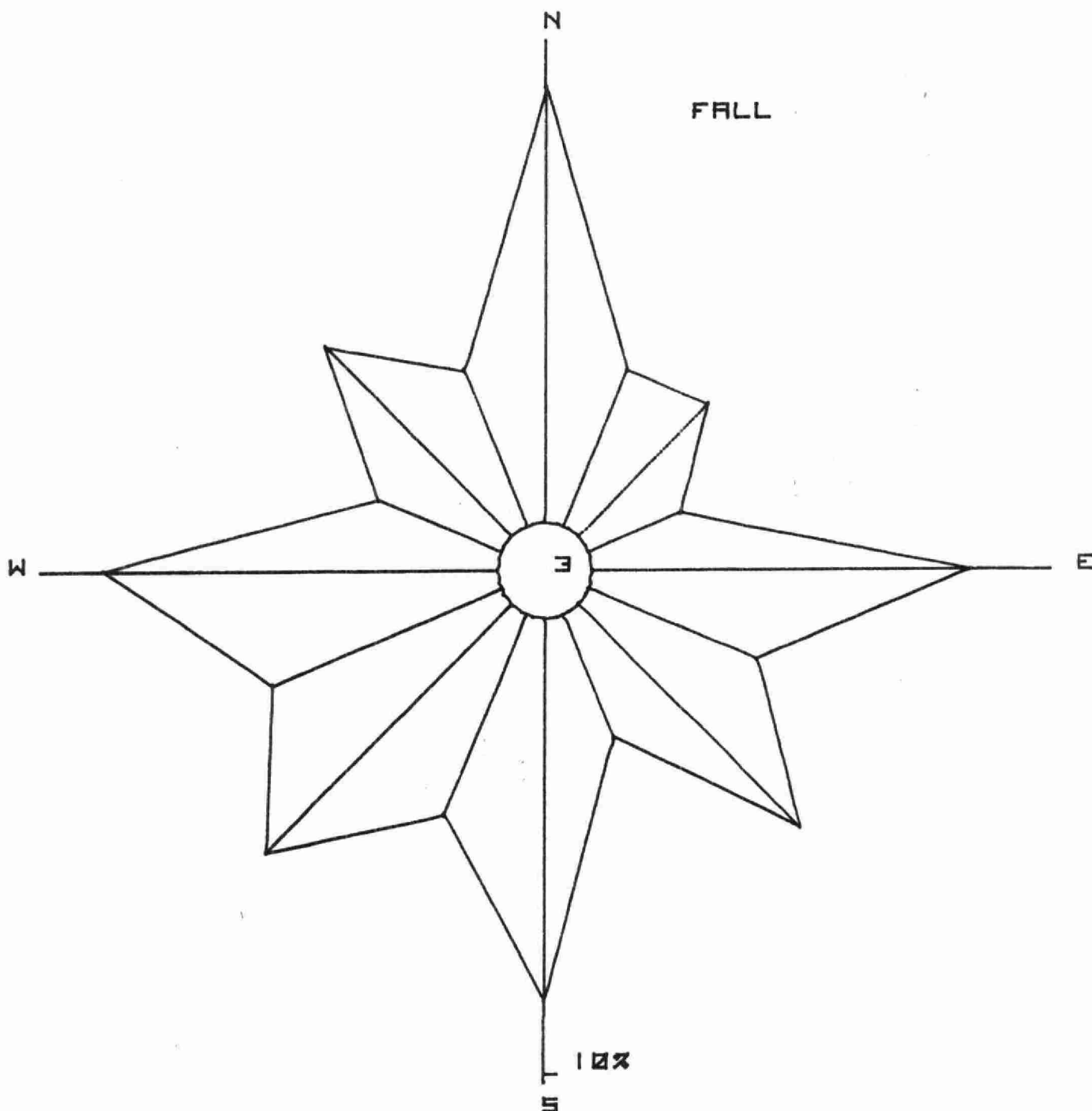


STATION INFORMATION

LOCATED
ON GRASS ISLAND HYDRO DAM IN
NIAGARA RIVER
HEIGHT

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
0	0	0	0	10	0	100	0	0



STATION INFORMATION

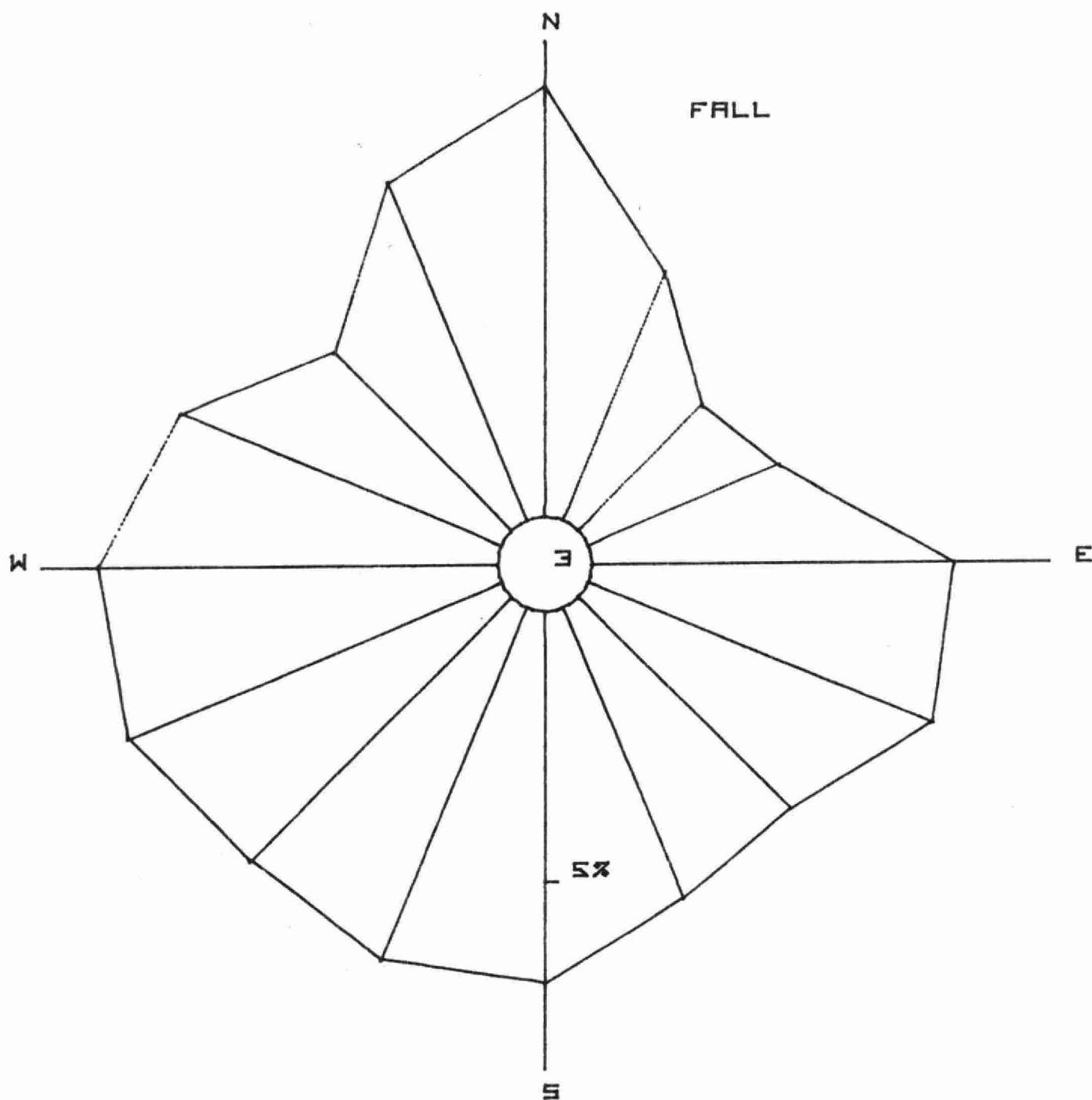
LOCATED ON AIRFIELD, N OF CITY IN SLIGHTLY
HILLY COUNTRY WITH AN ESCARPMENT IN A E-W
DIRECTION SOUTH OF AIRPORT. NO OBSTRUCTIONS
HEIGHT 13.2M

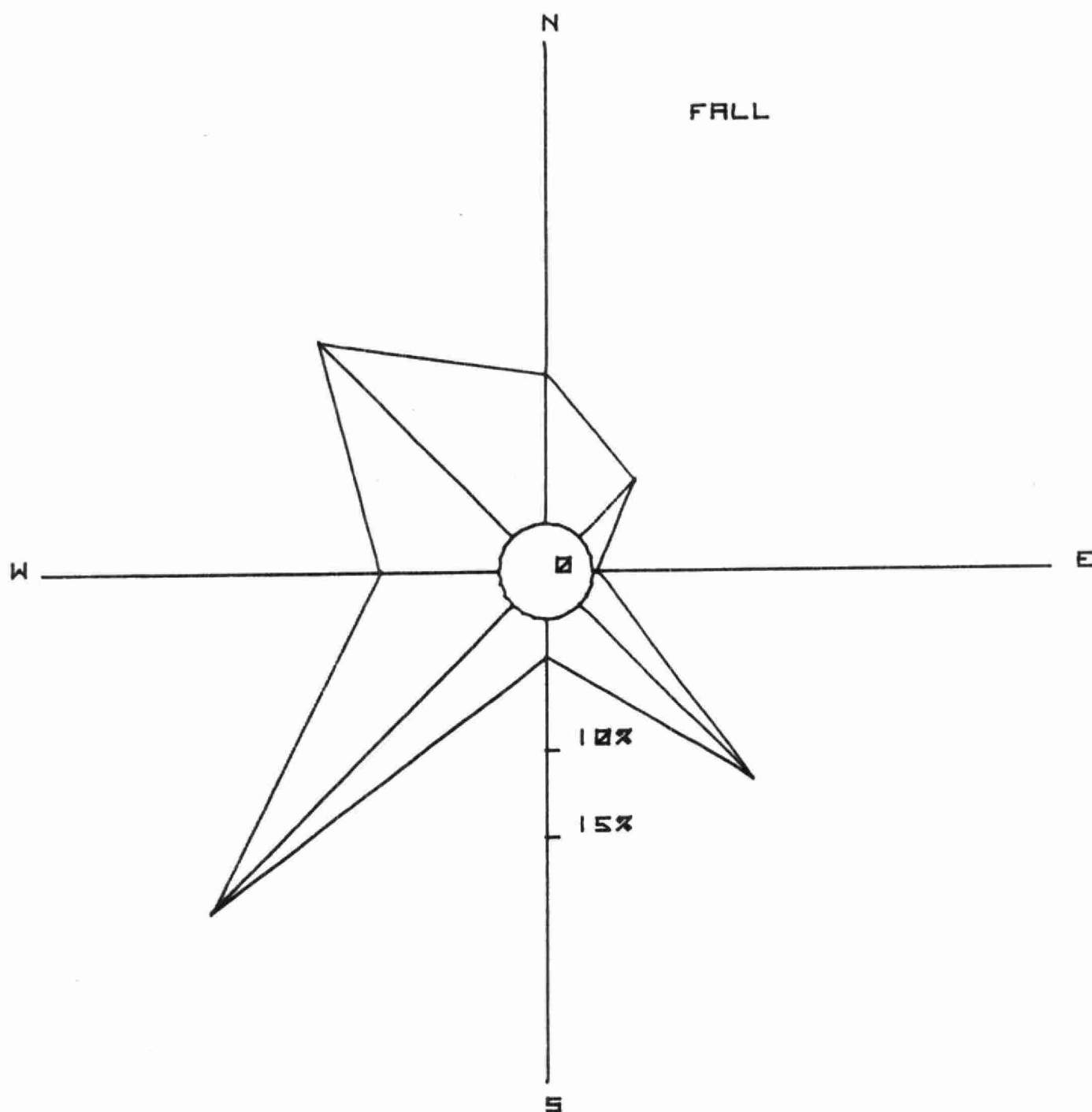
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
10	4	5	3	8	5	7	4	8	5	8	6	8	4	6	4	3

NORTH BAY (AES) 1955-1972
(BIASES REMOVED)

51





STATION INFORMATION

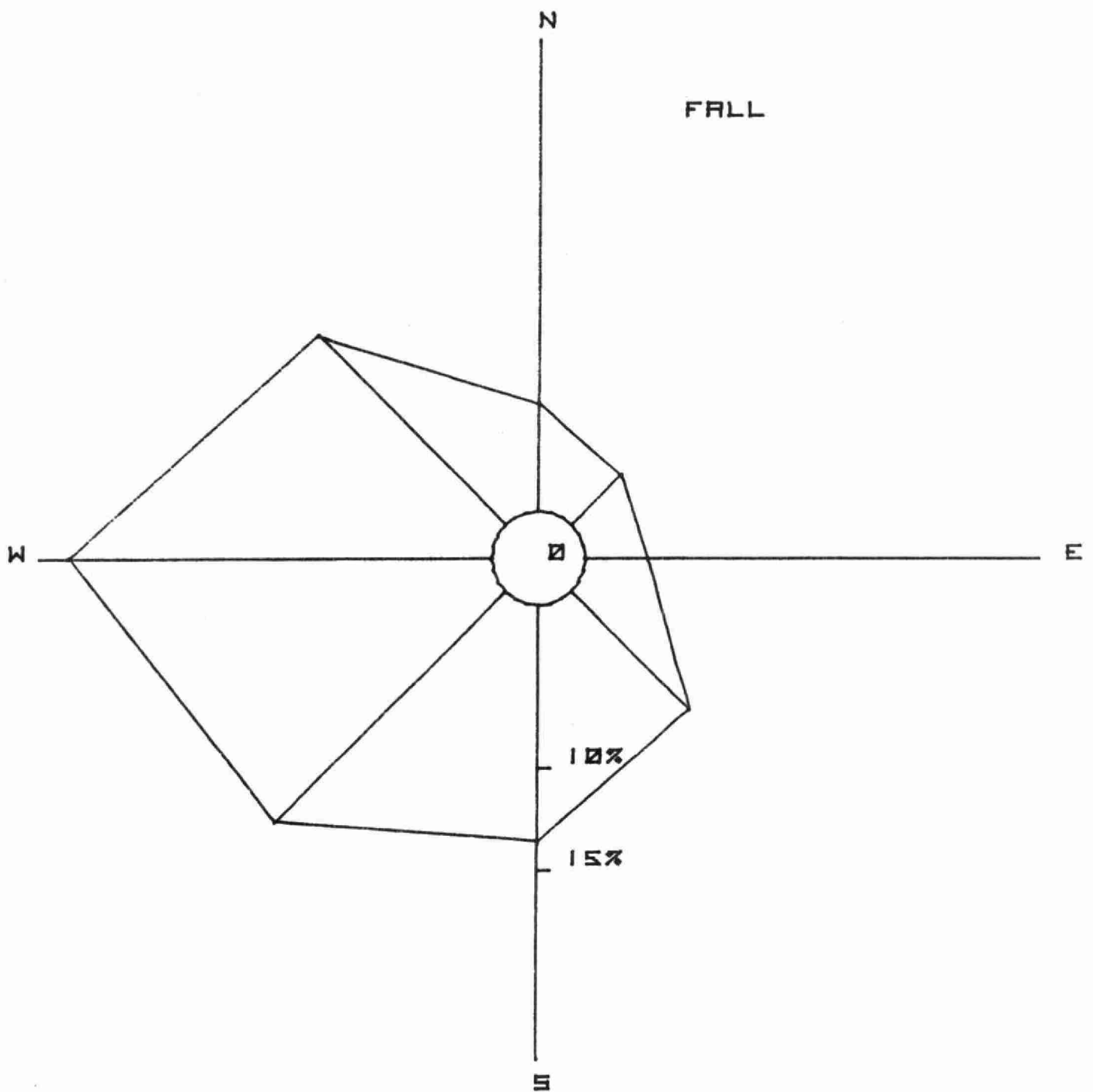
LOCATED IN A DEPRESSION ON THE SW-NE
 RUNNING HEIGHT OF LAND SEPARATING LAKE
 ONTARIO AND GEORGIAN BAY DRAINAGE AREA
 HEIGHT 24.6M

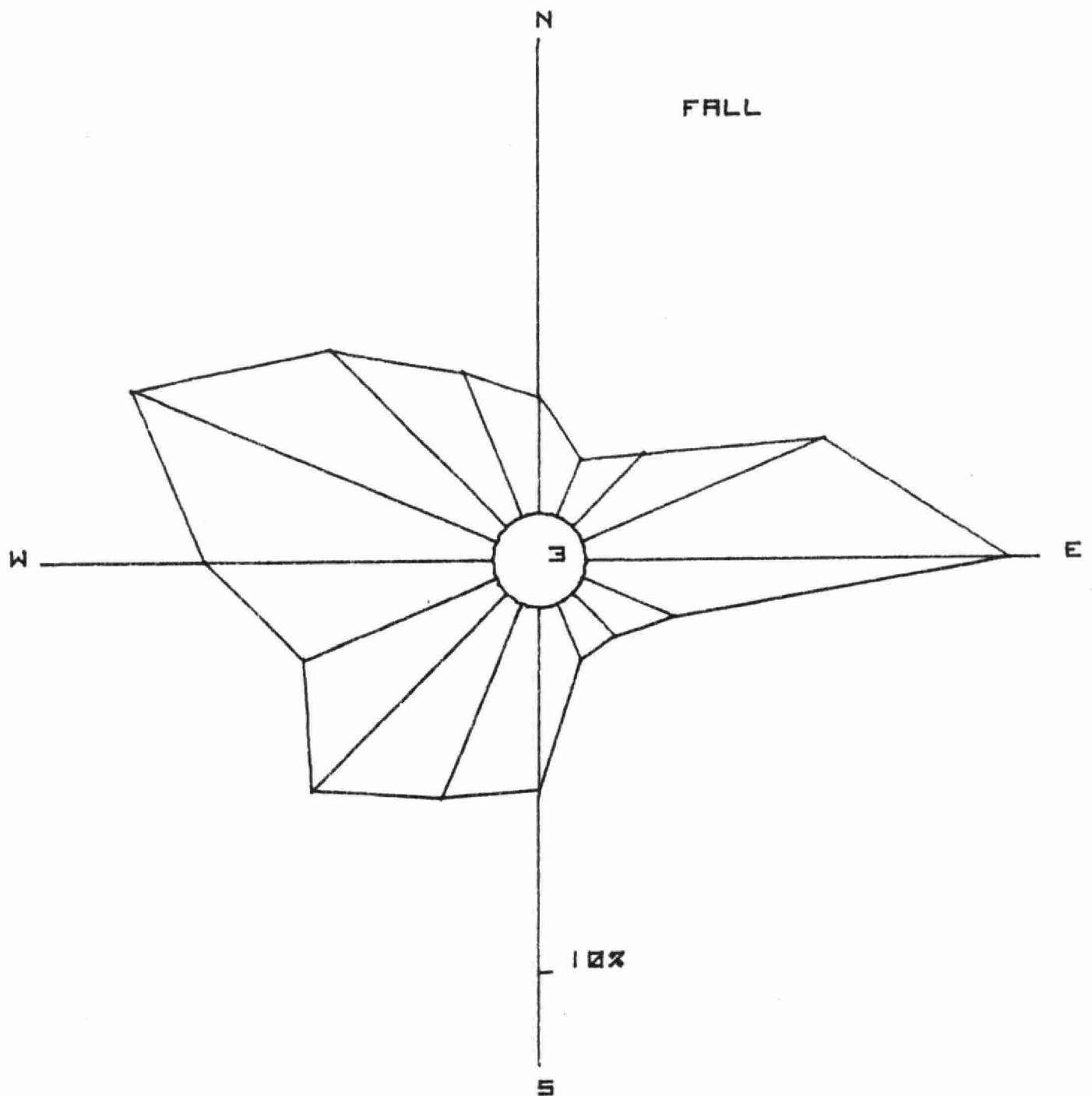
PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
11	7	3	17	5	20	10	10	0

OAK RIDGES (AES) 1922-1941
(BIASES REMOVED)

52





STATION INFORMATION

LOCATED AT THE AIRPORT
SE OF CITY IN SLIGHTLY ROLLING AREA
APPROX 25.6KM NW TO GATINEAU HILLS
HEIGHT 10.2M

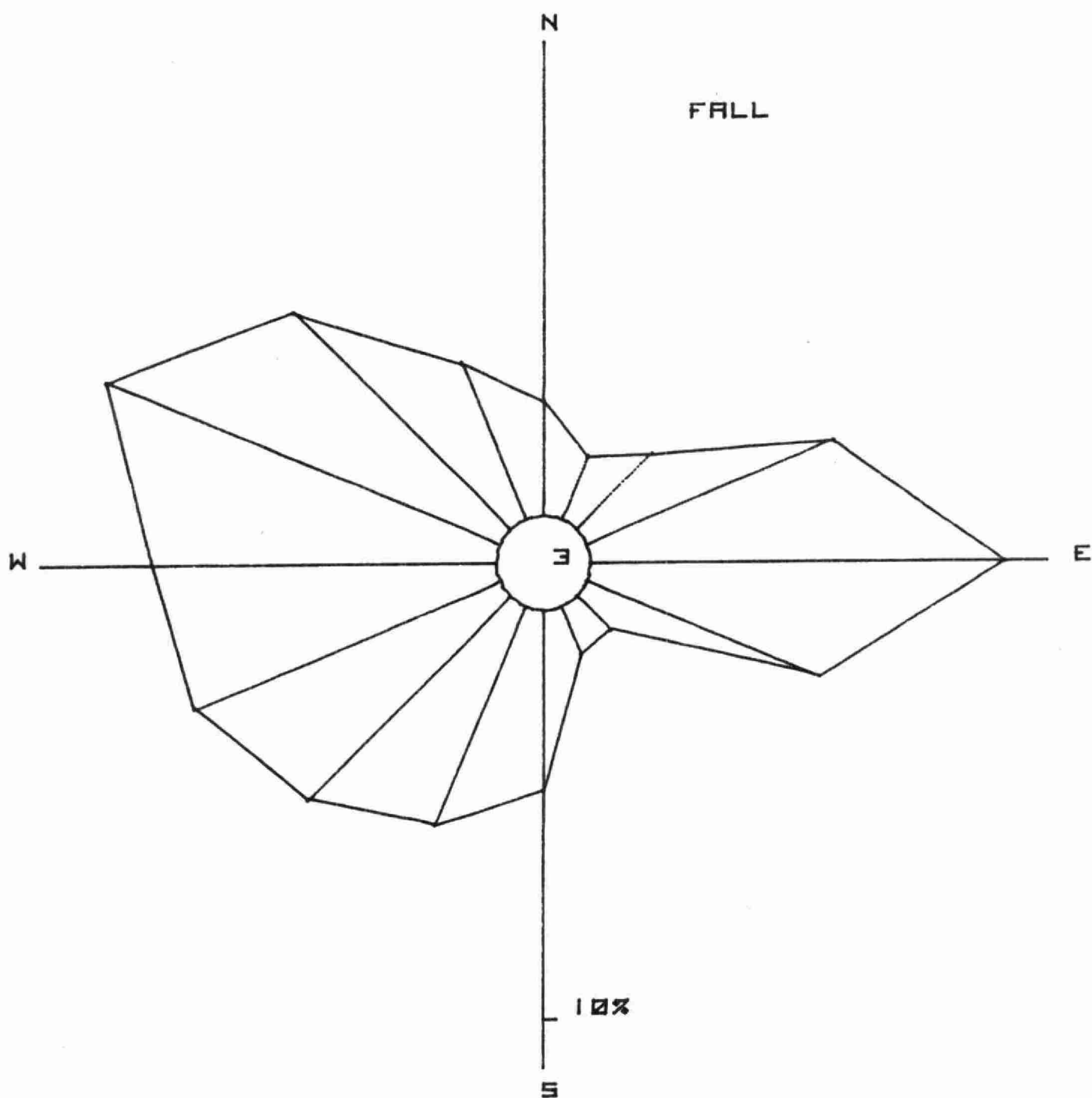
PERCENTAGE FREQUENCY

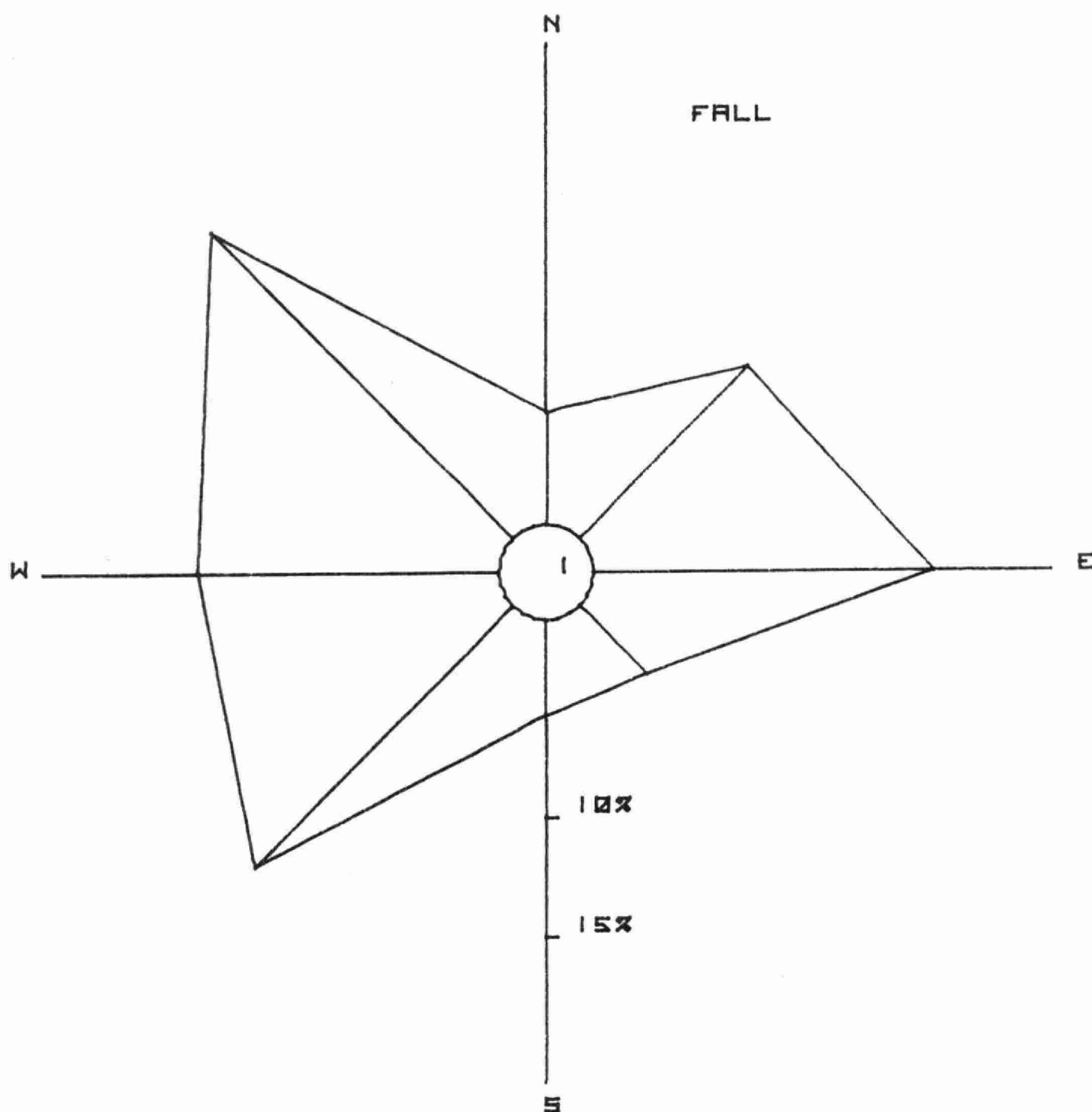
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
1	3	4	8	12	4	3	3	8	8	8	8	8	11	7	5	3

OTTAWA (INT'L A) (AES) 1955-1972

53

(BIASES REMOVED)



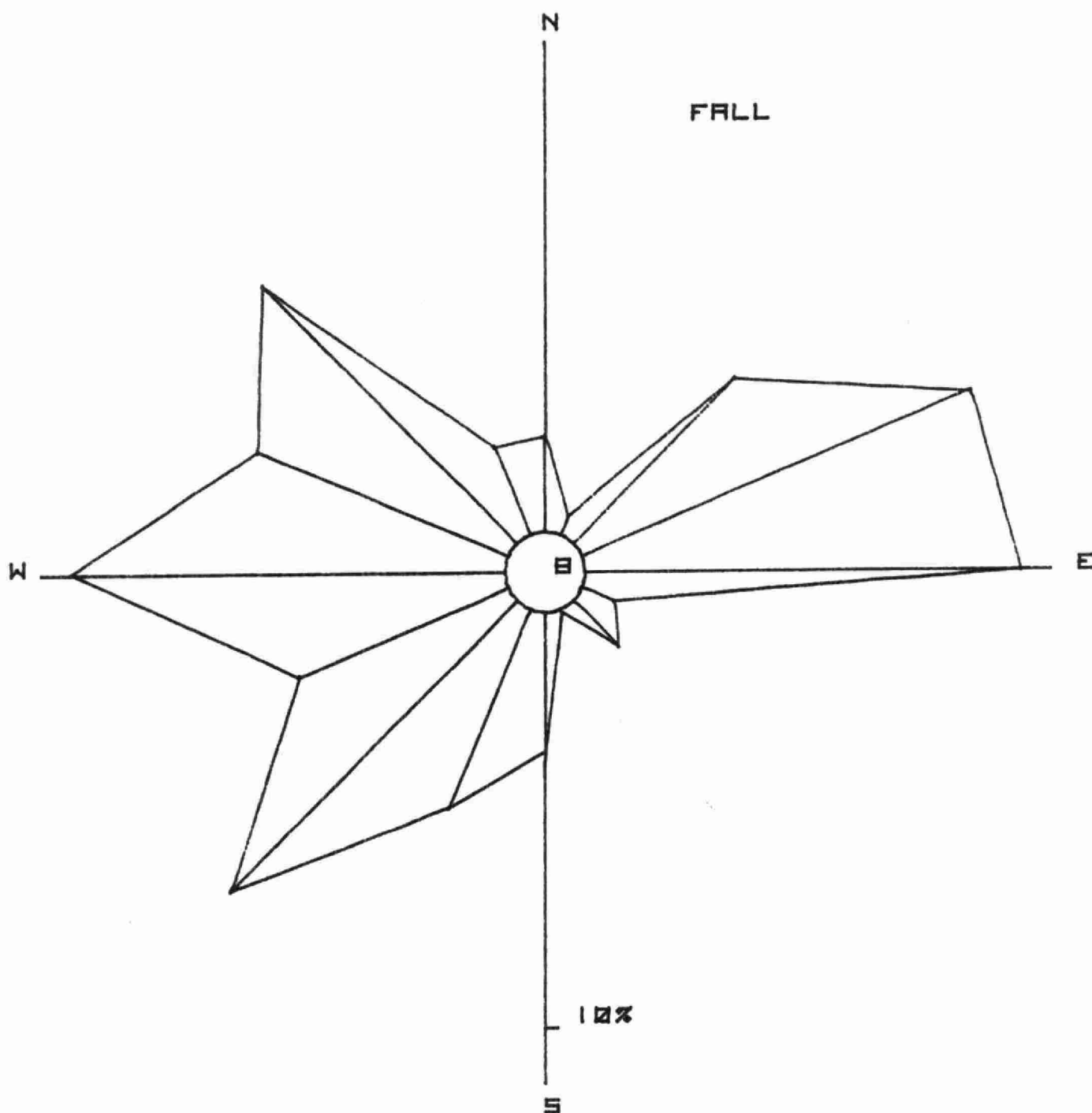


STATION INFORMATION

LOCATED E LIMITS OF CITY ATOP ADMIN
OFFICE AMONG RESEARCH BLDGS.
GOOD EXPOSURE ALL DIRECTIONS
HEIGHT 11.7M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	12	16	6	6	17	15	20	1



STATION INFORMATION

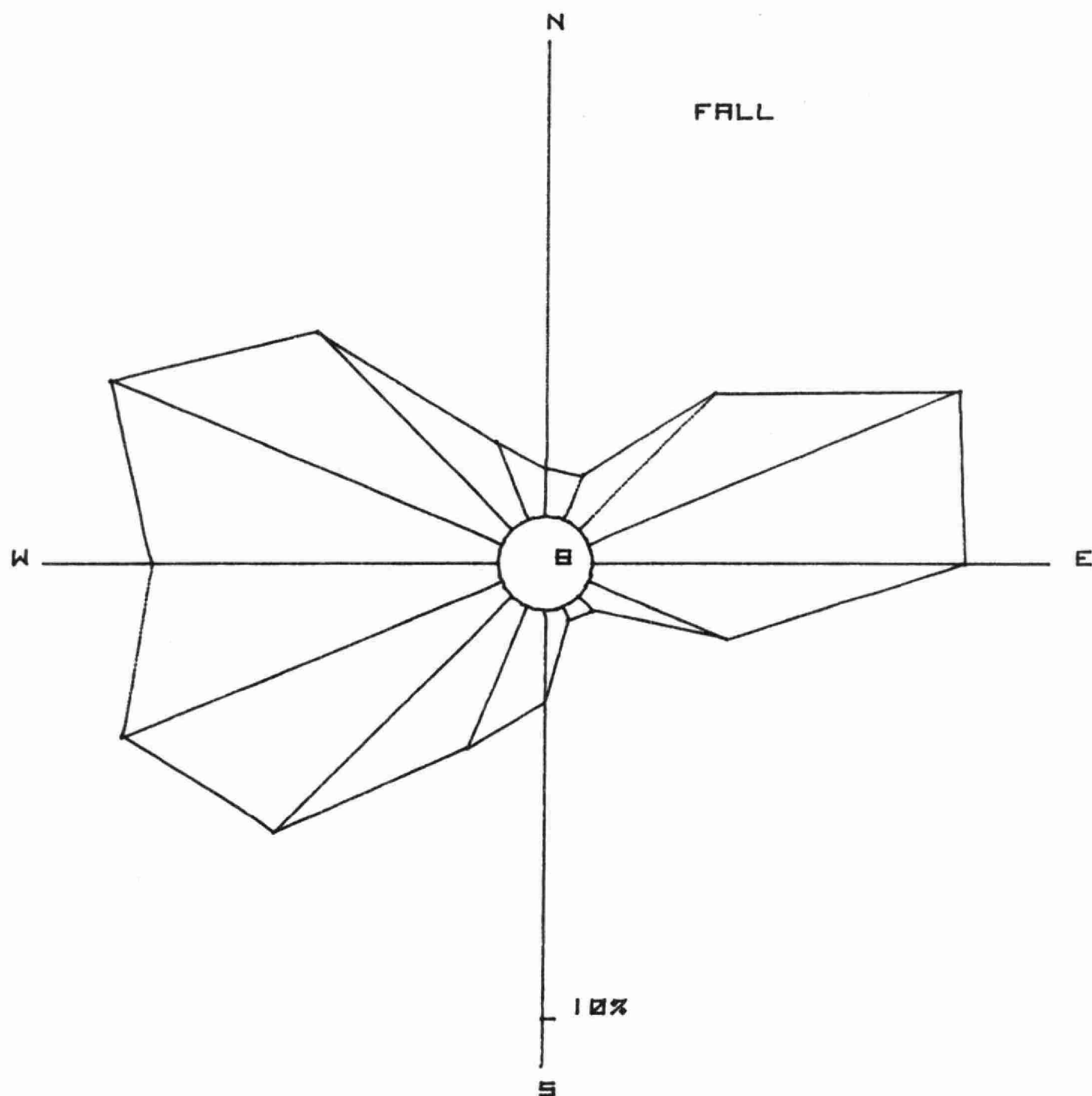
LOCATED AT AIRPORT E OF OUTSKIRTS,
1.5KM N ON HWY 17 ON S SHORE OTTAWA
RIVER. SURROUNDING COUNTRY IS ROLLING.
HEIGHT 15.4M

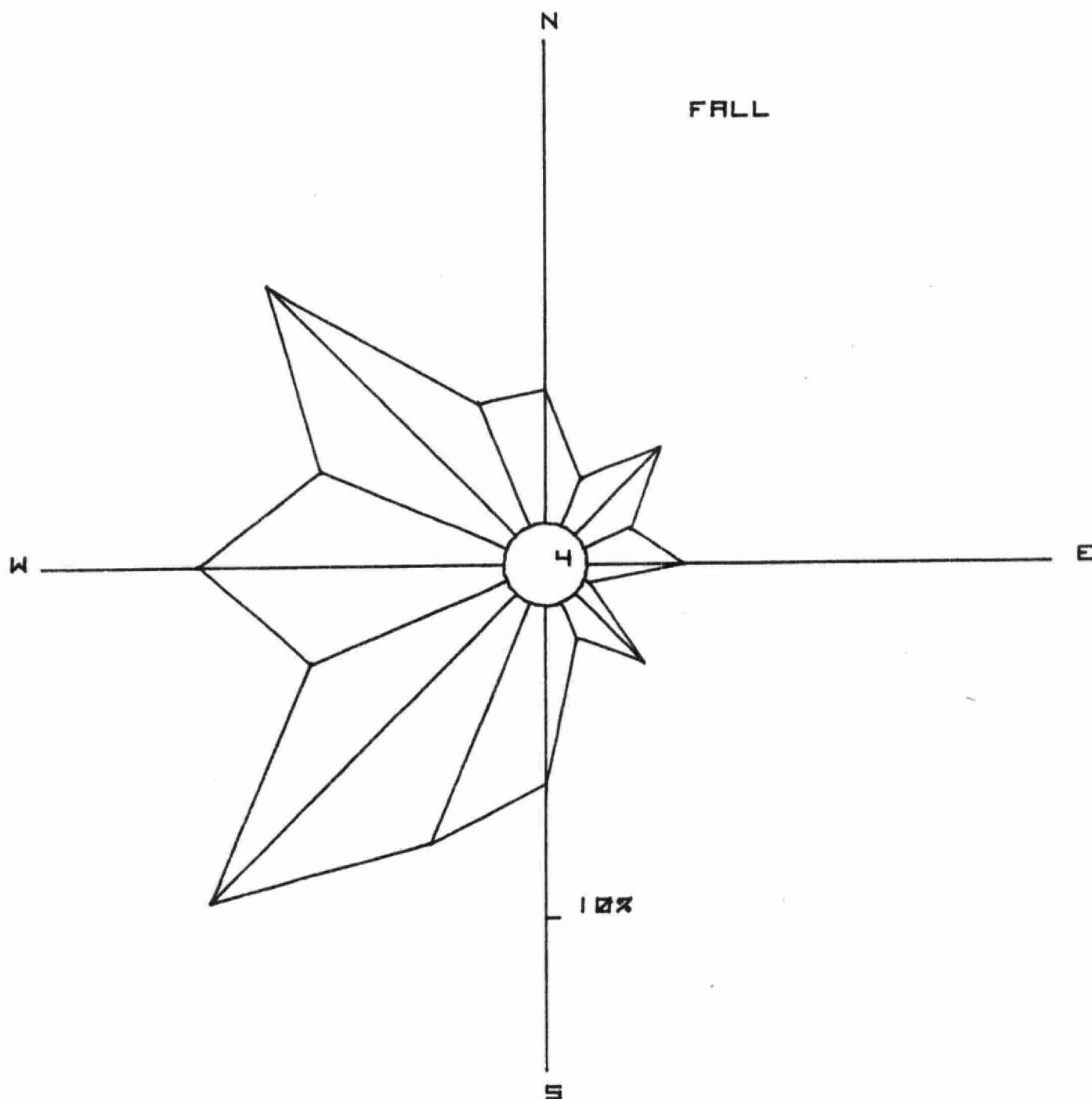
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
3	1	8	10	11	2	2	1	4	8	10	8	11	7	8	3	0

OTTAWA (ROCKCLIFFE) (AES) 1955-1964
(BIASES REMOVED)

55





STATION INFORMATION

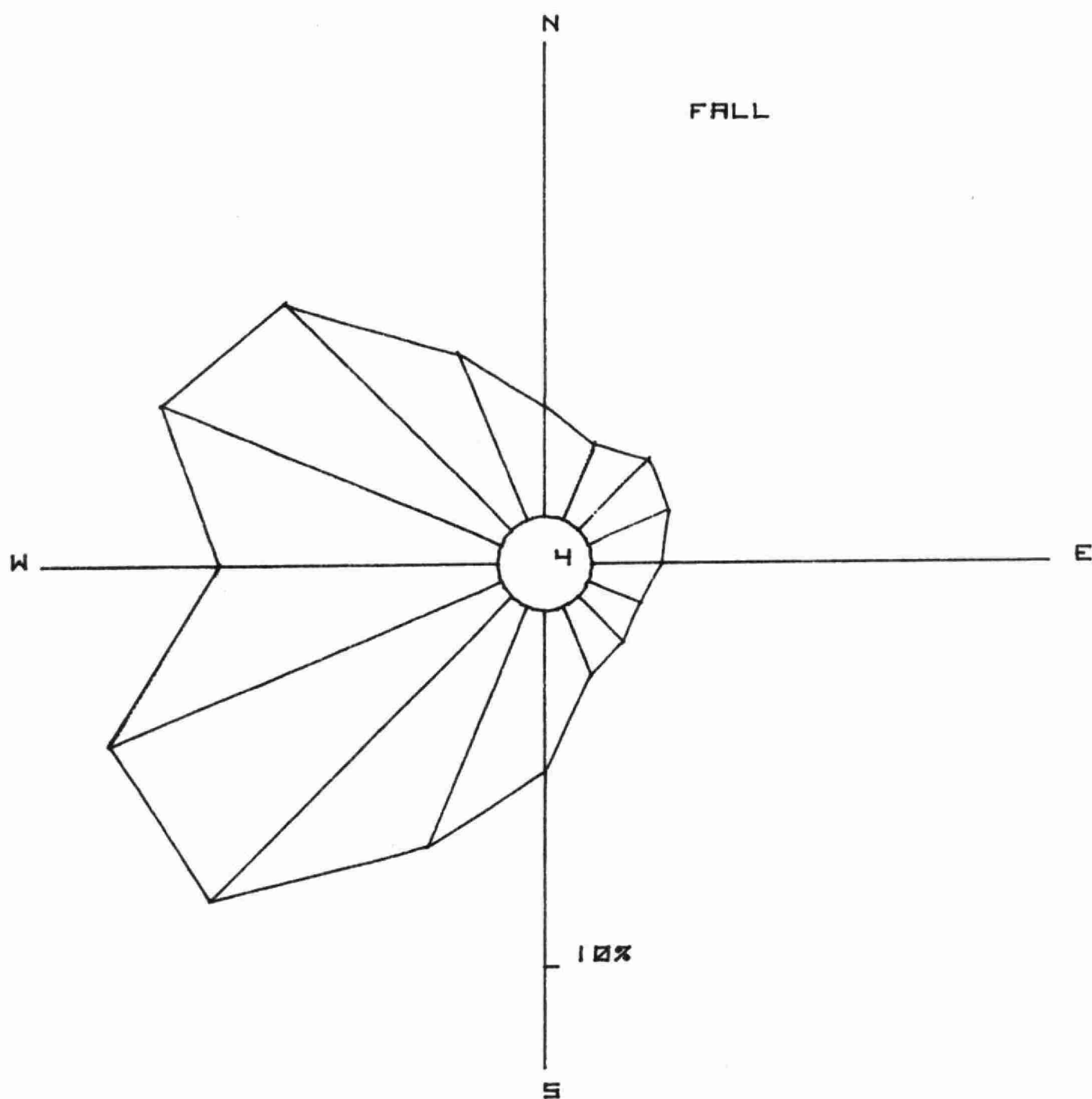
LOCATED IN FAIRLY FLAT AREA EXCEPT FOR A NARROW VALLEY 3.2 KM E. ANEMOMETER IS BELOW TREES. HEIGHT 13.2 M

PERCENTAGE FREQUENCY

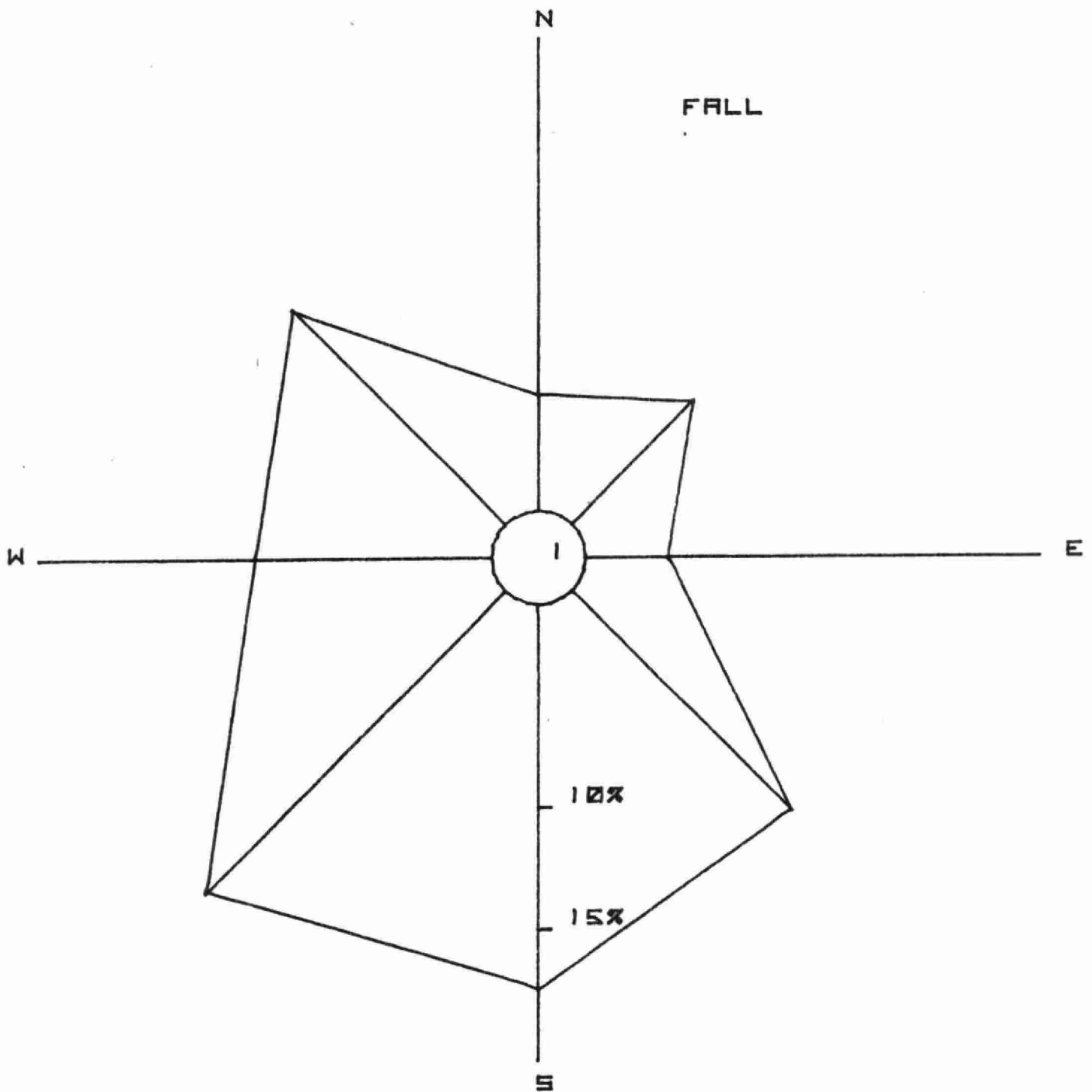
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
5	3	5	3	4	1	4	2	6	9	14	7	10	7	11	5	4

PAGWA (A) (AES) 1955-1964
(BIASES REMOVED)

56



PRISLEY (AES) 1962-1972

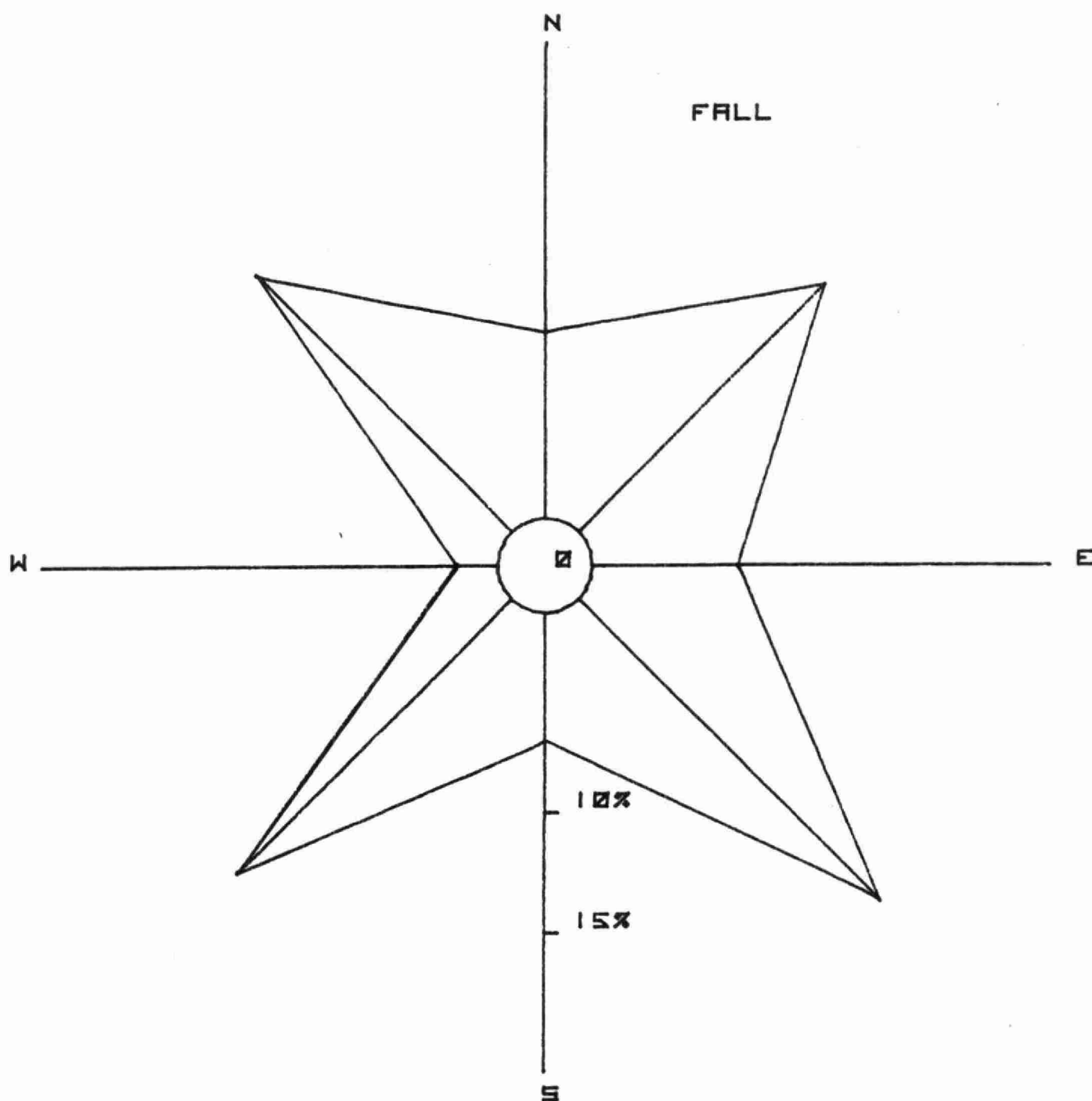


STATION INFORMATION

LOCATED IN ROLLING FARMLAND. OBSTRUCTION TO E-NE. HEIGHT 10.2 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	9	5	15	18	19	12	14	1



STATION INFORMATION

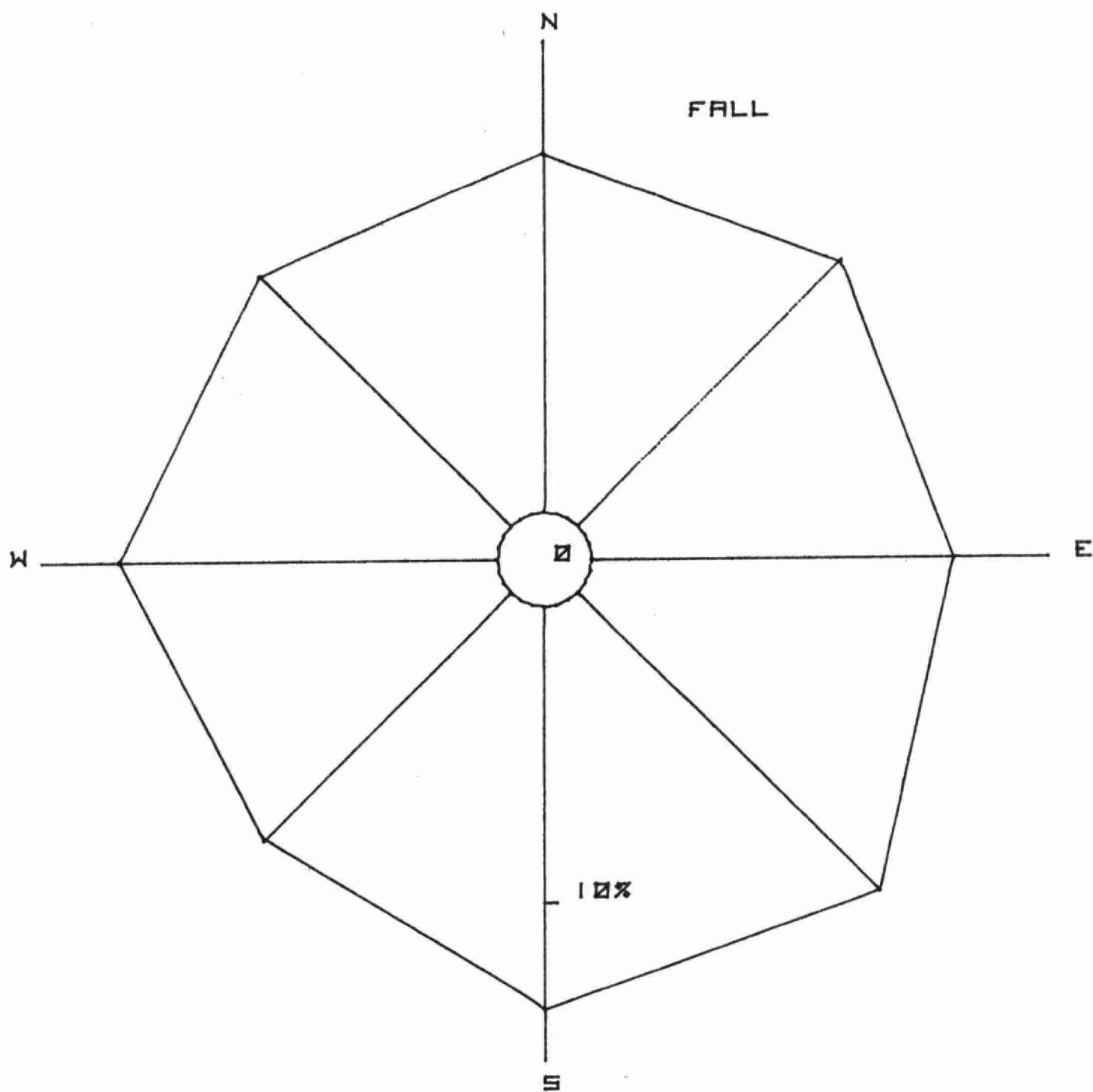
LOCATED IN TOWN. HIGH FORESTED LAND TO THE NW. AREA HILLY.
HEIGHT 13.8

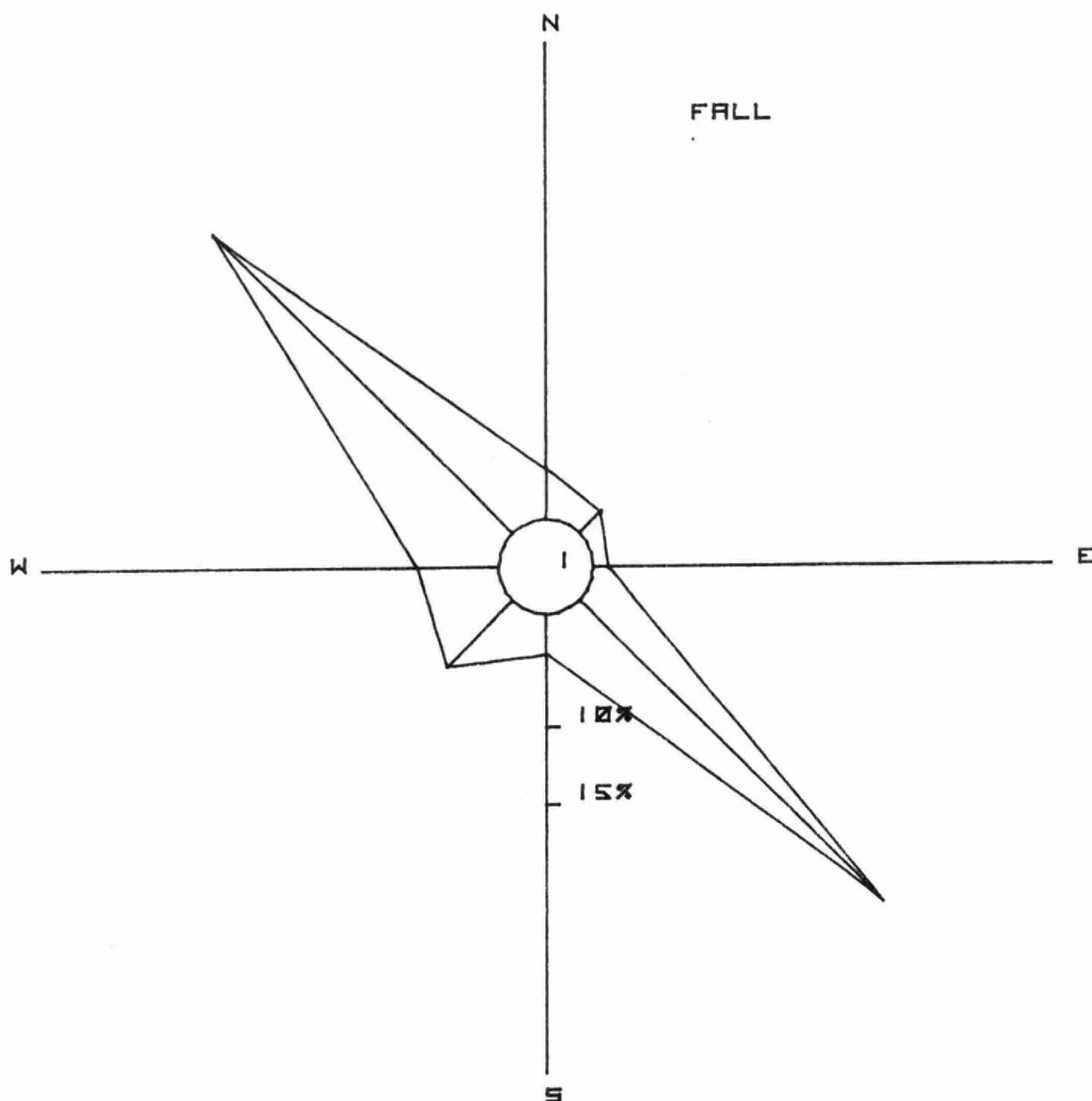
PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	17	8	20	7	18	4	17	0

PARRY SOUND (AES) 1937-1949
(BIASES REMOVED)

58



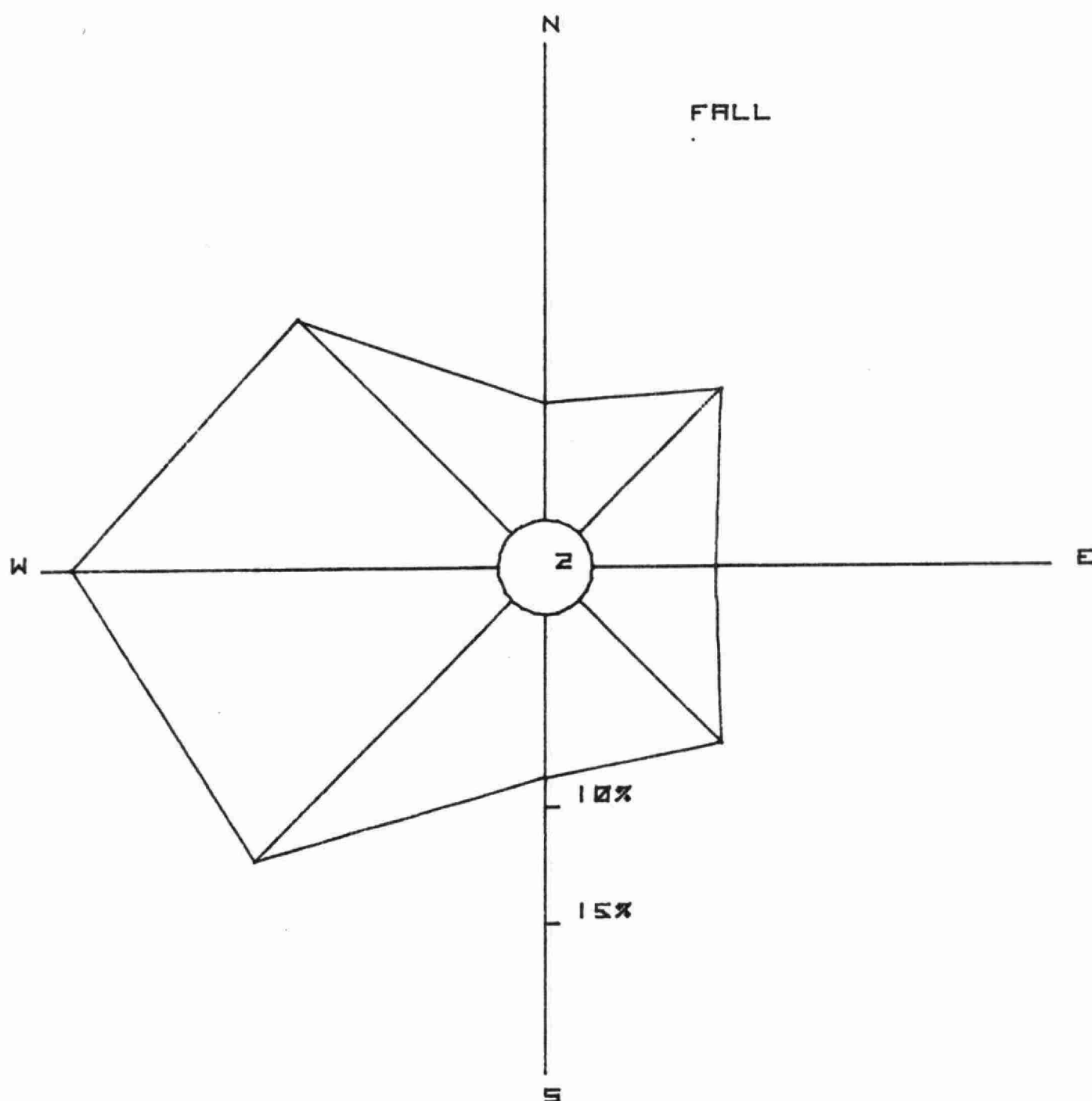


STATION INFORMATION

LOCATED AT DOMINION FORESTRY STN. 1.5 KM S OF TOWN IN SHALLOW E-W VALLEY. ROLLING WOODED AREA AROUND STN. HEIGHT 30.8 M.

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
6	5	4	31	6	9	8	30	1

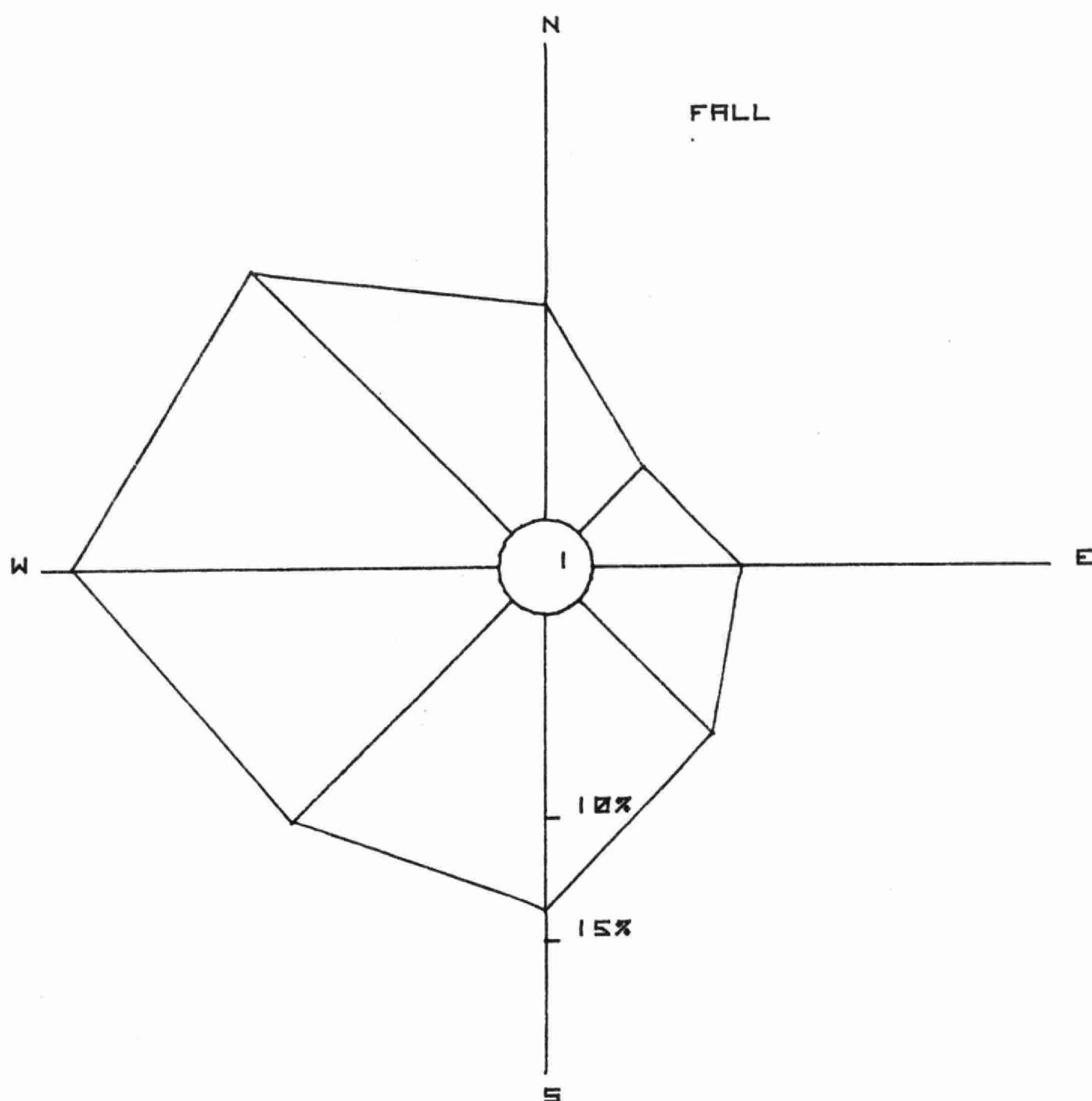


STATION INFORMATION

LOCATED FORESTRY STN PICKLE LAKE LANDING. WELL EXPOSED AREA IS ROCKY AND ROLLING WITH NUMEROUS LAKES AND TREES.
HEIGHT 10.5 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	11	7	11	9	18	20	15	2

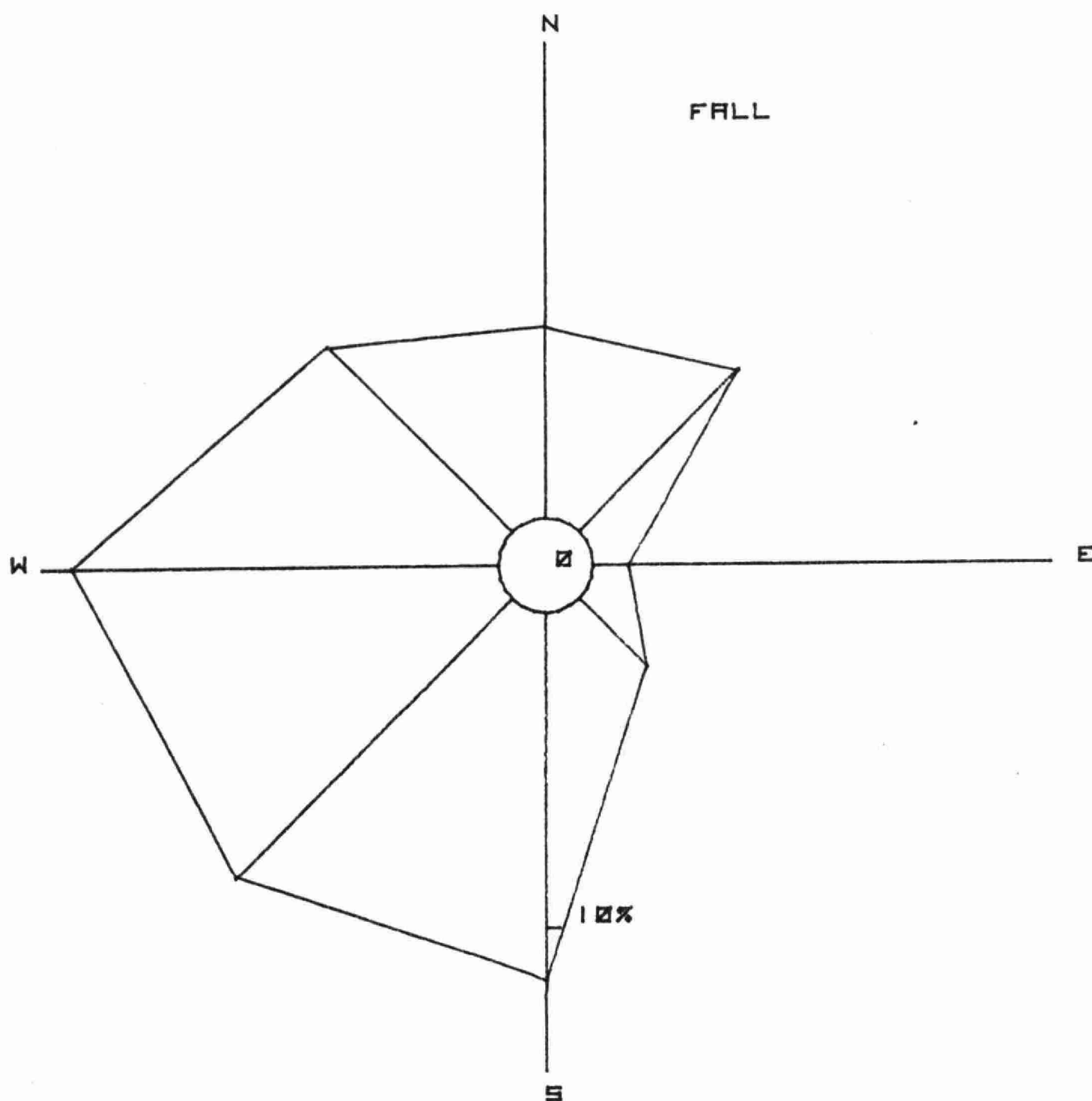


STATION INFORMATION

LOCATED AT AIRPORT IN BUSH COUNTRY, LEVEL WITH SLIGHT HILLS AND RIDGES.
HEIGHT 16.3 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
11	6	8	10	14	14	19	17	1



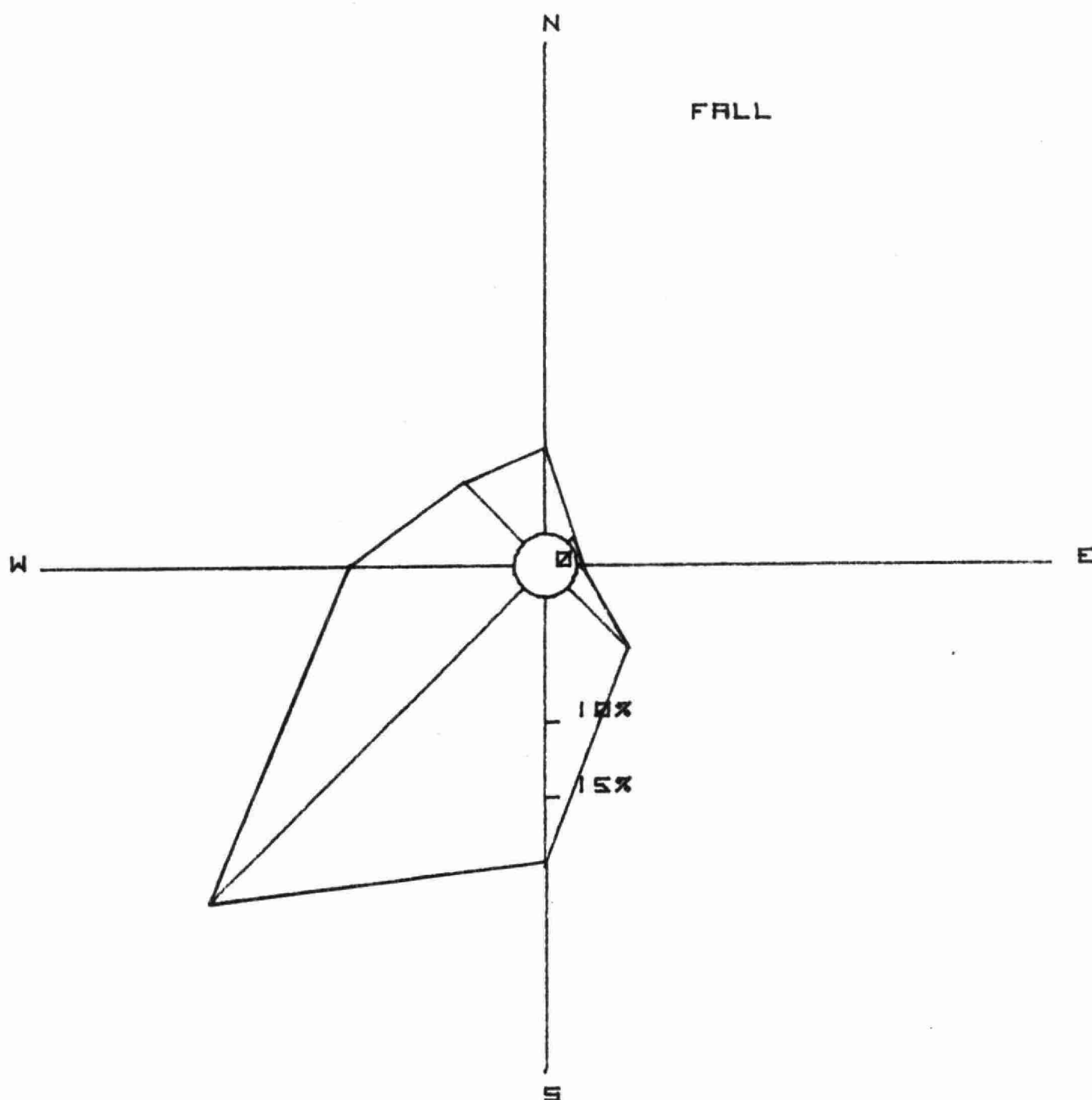
STATION INFORMATION

LOCATED

AT MARINE LIGHTHOUSE. HEIGHT 20.3 M

PERCENTAGE FREQUENCY

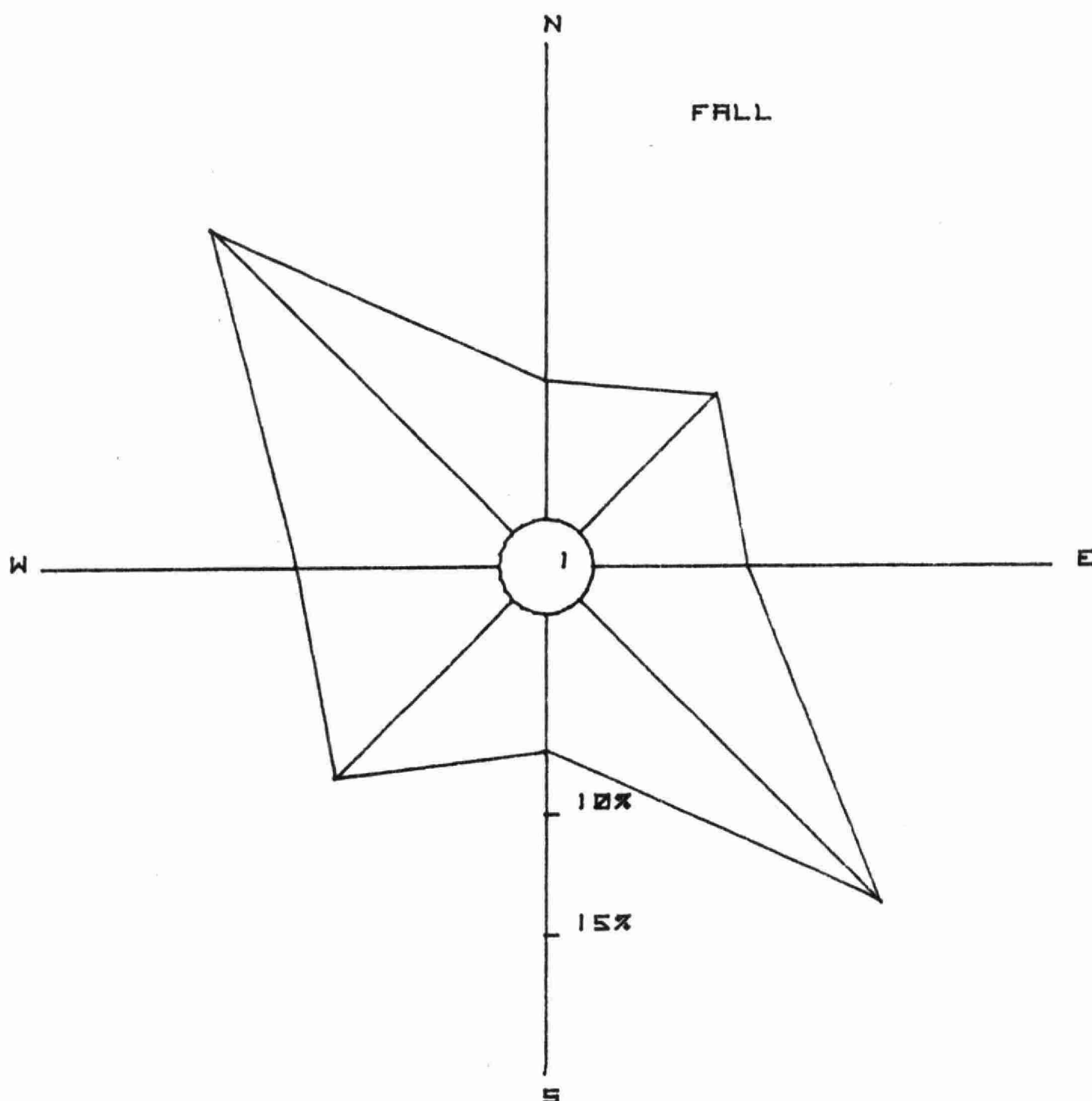
N	NE	E	SE	S	SW	W	NW	CALM
12	9	3	5	12	33	13	10	0



STATION INFORMATION
LOCATED
WRAY MINOR RD.
HEIGHT 9.2 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
9	4	3	9	21	32	14	8	0

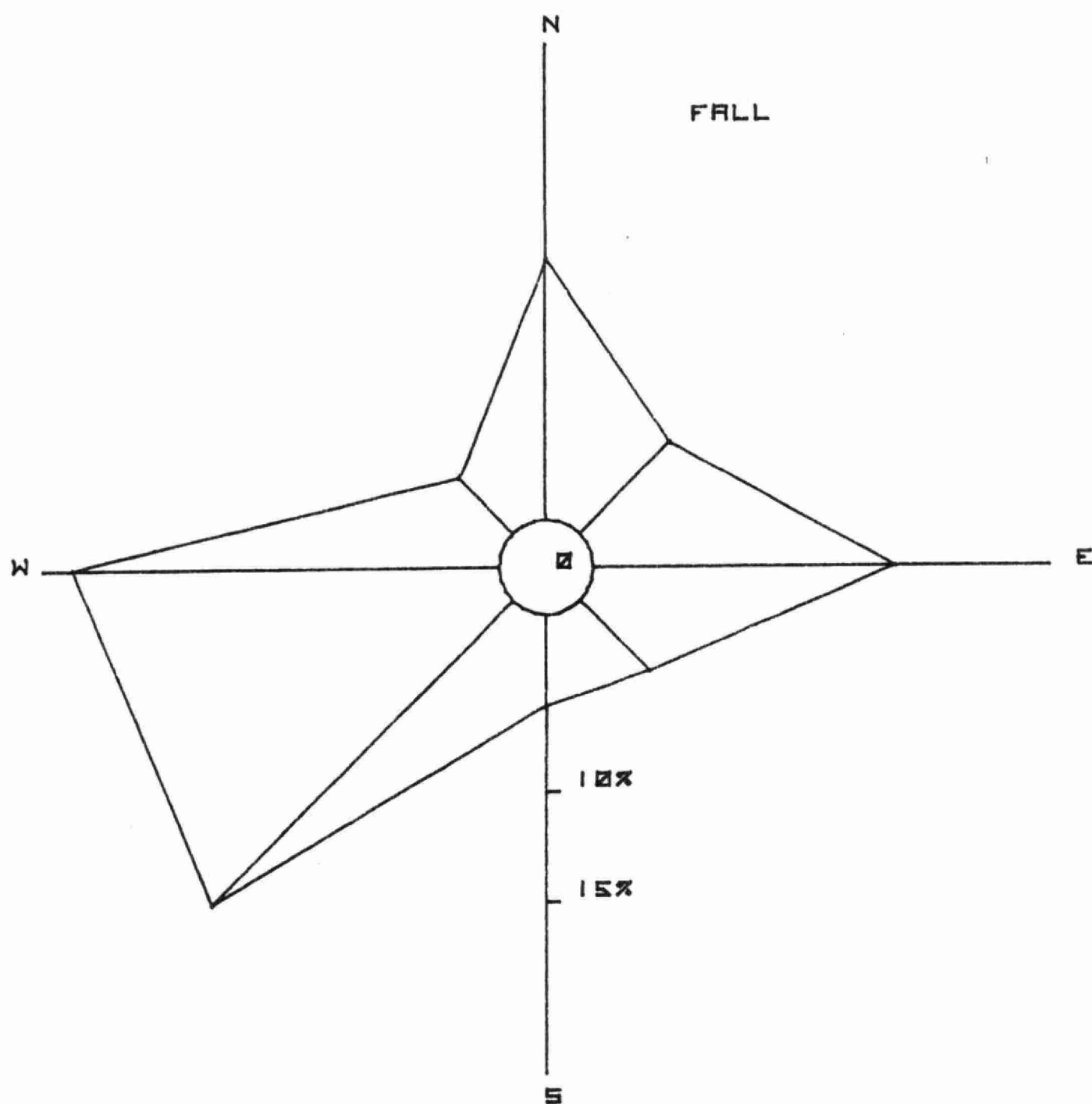


STATION INFORMATION

LOCATED AT COCHENDUR 8 KM OF RED LAKE AIRPORT,
4 KM OF TOWN. AREA IS FORESTED WITH MANY LAKES.
HEIGHT 10.2M

PERCENTAGE FREQUENCY

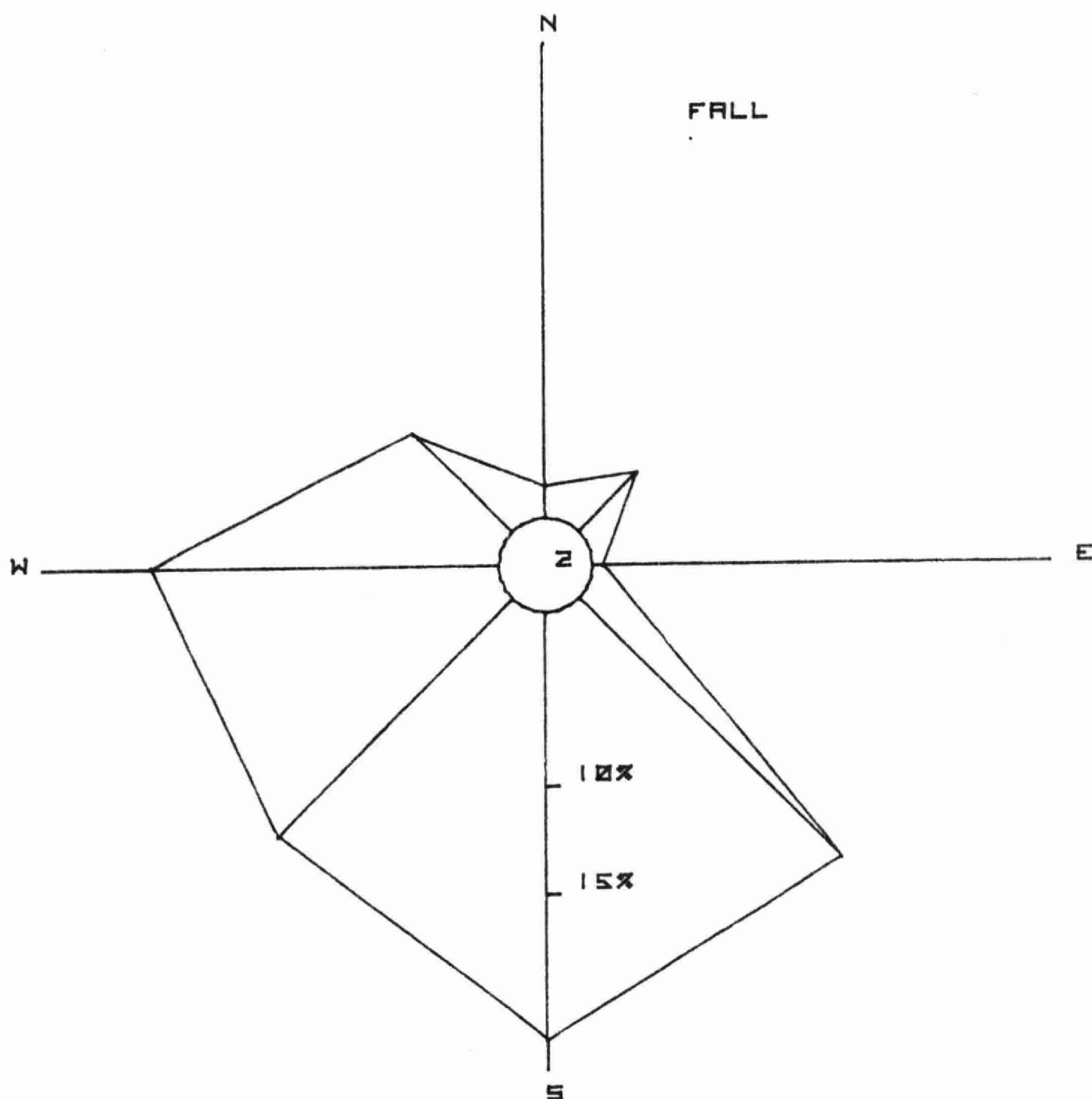
N	NE	E	SE	S	SW	W	NW	CALM
8	10	9	20	8	13	11	20	1



STATION INFORMATION
LOCATED
AT FERN FORD
1012 TALBOT ST.
HEIGHT 9.2 M

PERCENTAGE FREQUENCY

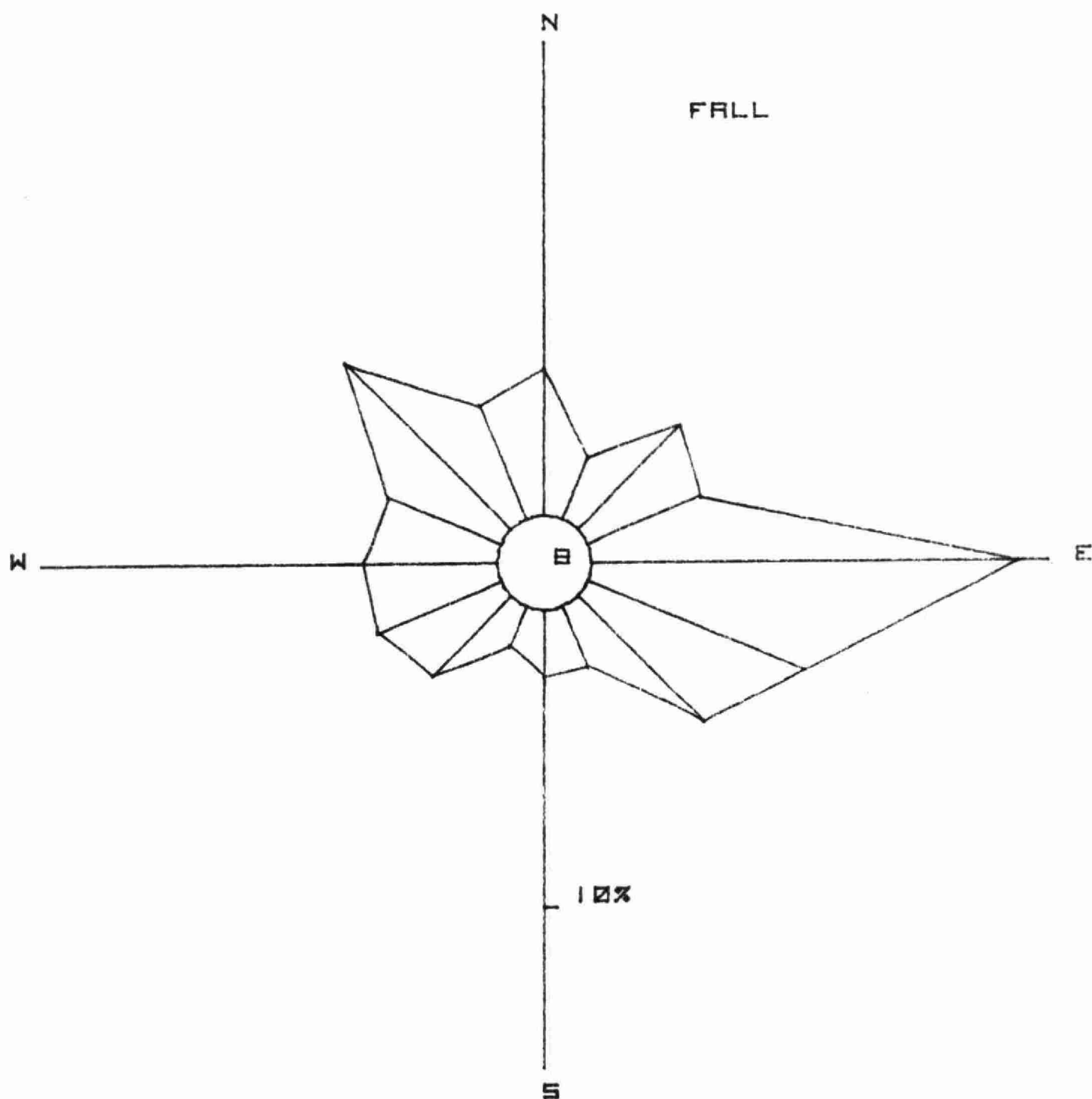
N	NE	E	SE	S	SW	W	NW	CALM
14	8	16	7	6	21	22	6	0



STATION INFORMATION
LOCATED
AT RAPID RANGE STN.
11.2 KM SE OF TOWN CENTRE.
HEIGHT 10.8 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
4	6	3	19	22	18	18	8	2



STATION INFORMATION

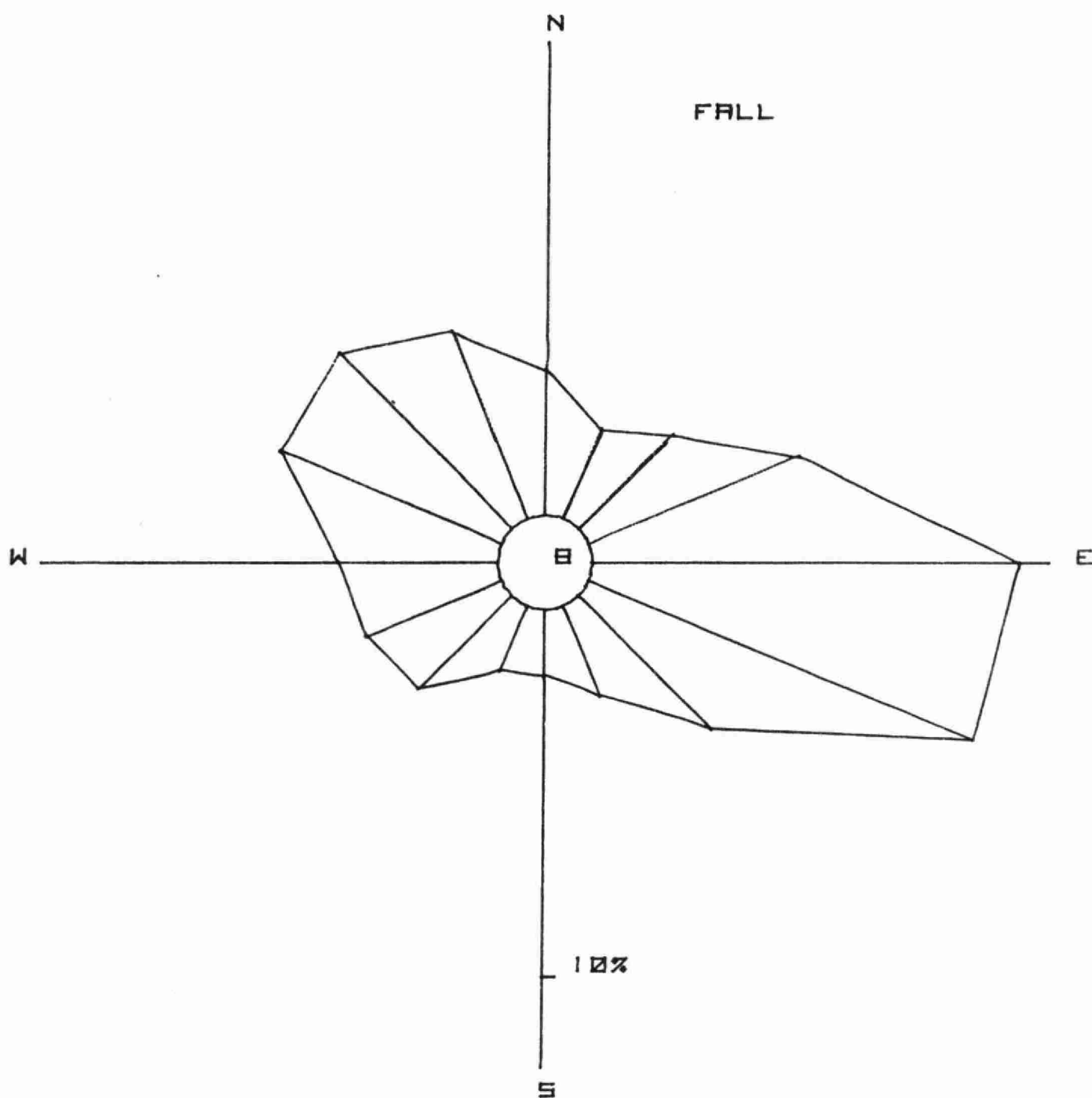
LOCATED AT AIRPORT IN FLAT COUNTRY. APPROX 6.4 KM TO THE N IS A RIDGE OF HILLS. 3.8 KM TO W IS LAKE SUPERIOR.
HEIGHT 12.9 M

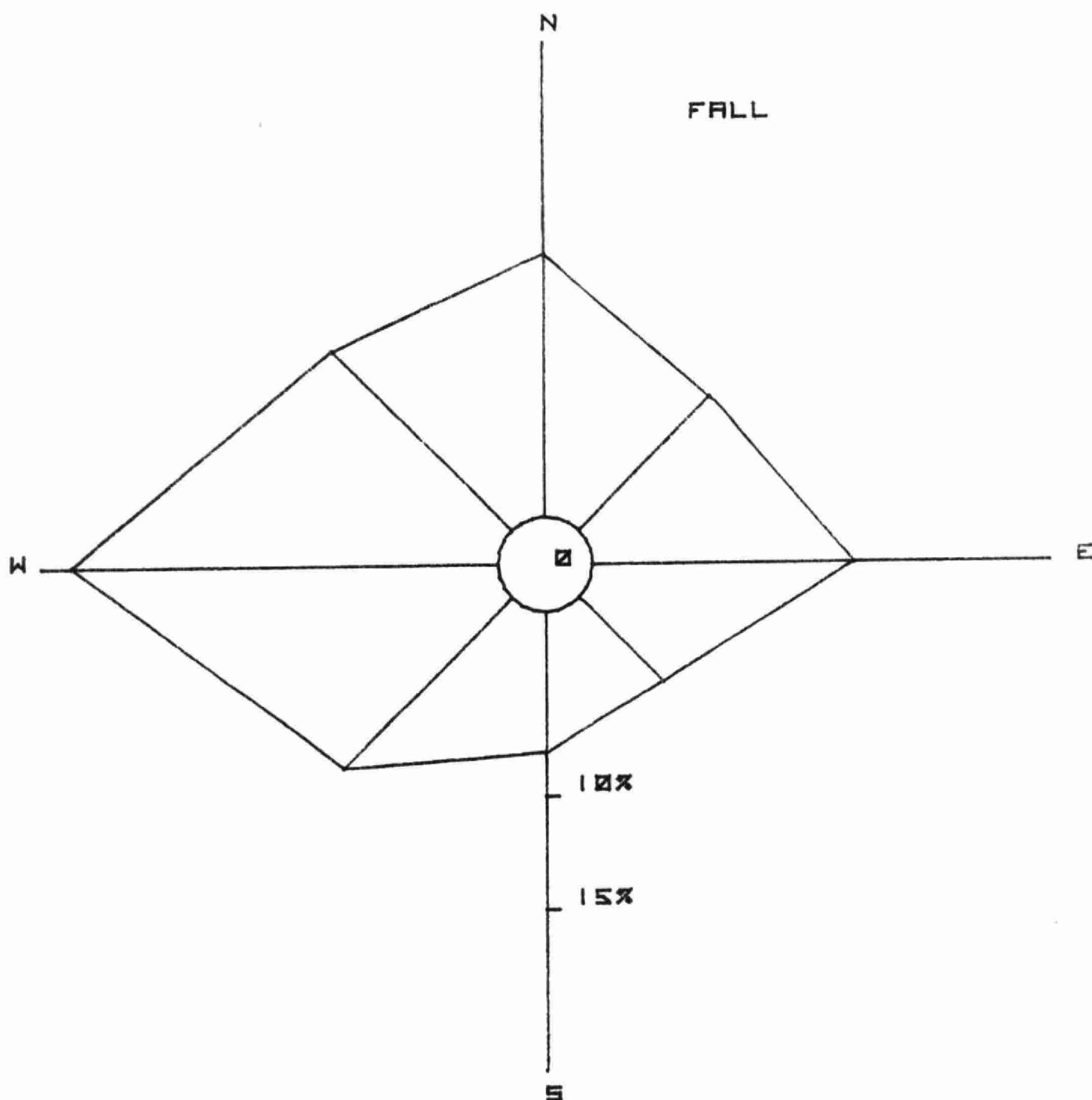
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	3	6	5	14	9	7	3	3	3	5	5	5	5	8	5	8

SAULT STE MARIE (AES) 1961-1972

(BIASES REMOVED)

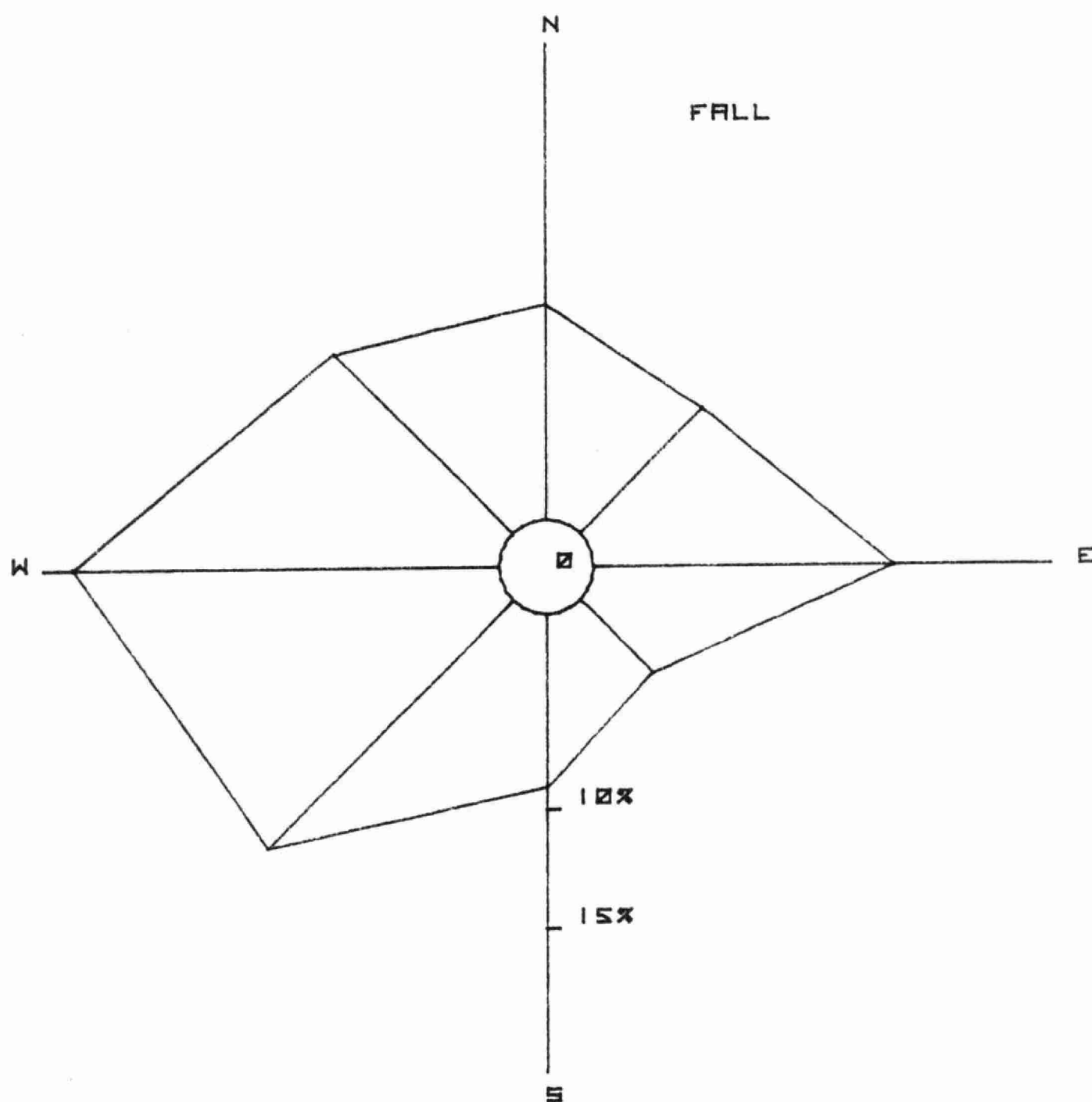




STATION INFORMATION
 LOCATED
 AT LAWRENCE/KENNEDY
 IN SCARBOROUGH
 HEIGHT 10.1 M

PERCENTAGE FREQUENCY

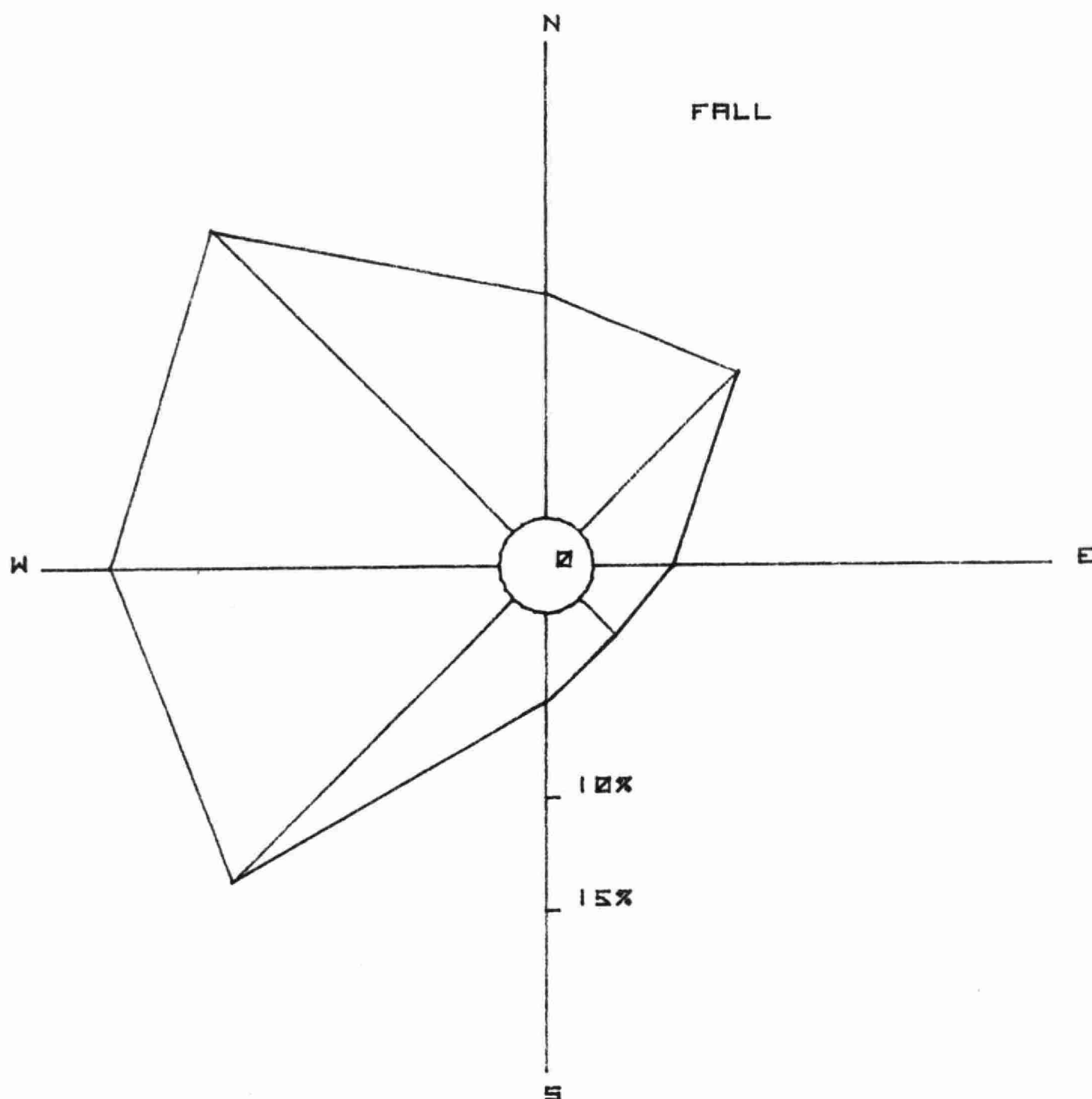
N	NE	E	SE	S	SW	W	NW	CALM
14	10	14	7	8	13	21	13	0



STATION INFORMATION
 LOCATED
 AT LAWRENCE/KENNEDY
 IN SCARBOROUGH
 HEIGHT 61.6 M

PERCENTAGE FREQUENCY

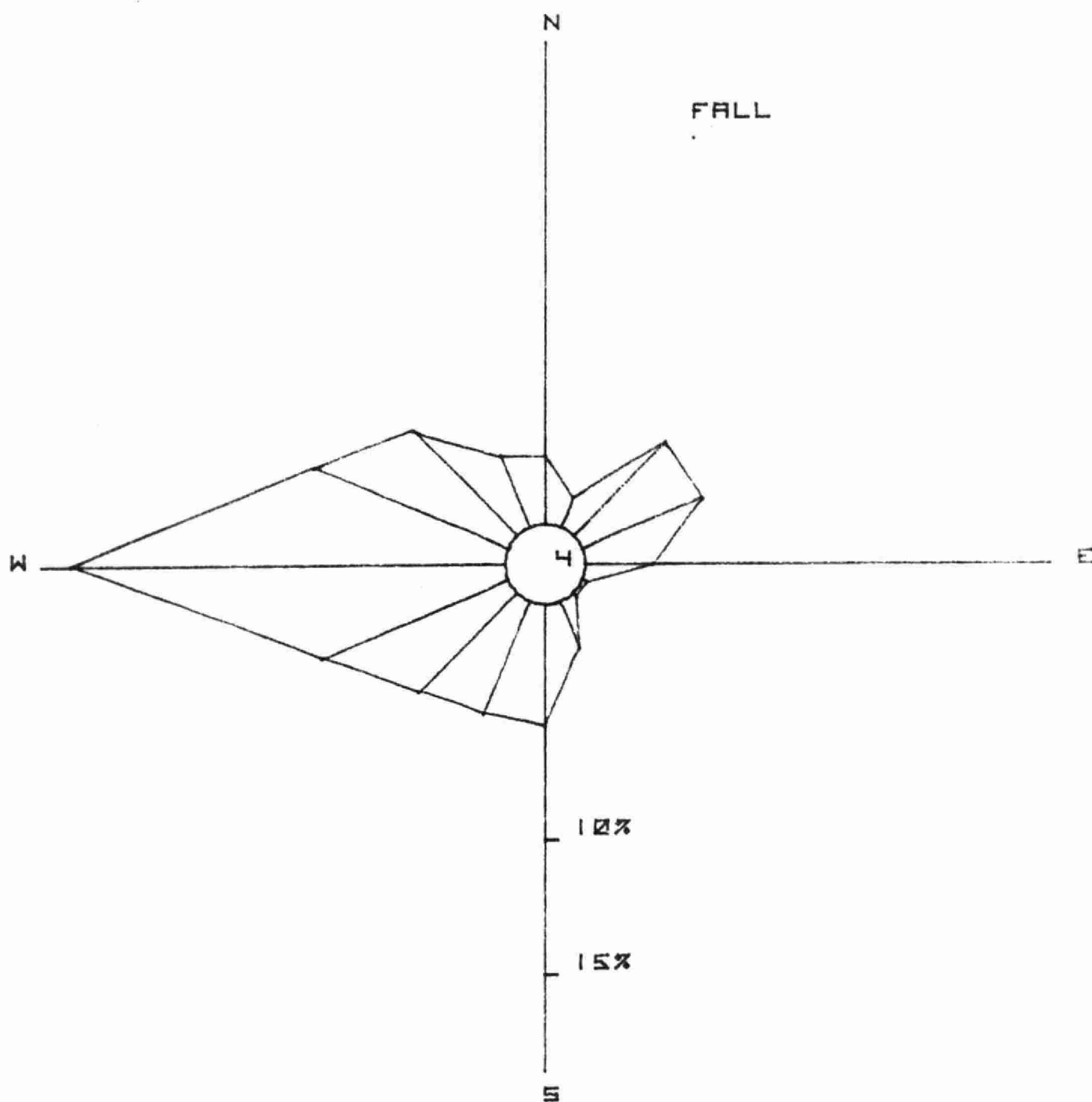
N	NE	E	SW	S	SW	W	NW	CALM
11	9	15	6	9	17	10	13	0



STATION INFORMATION
 LOCATED
 AT OLIVER MOWATT PS
 IN SCARBOROUGH
 HEIGHT 13.8 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
12	12	6	4	6	20	19	21	0

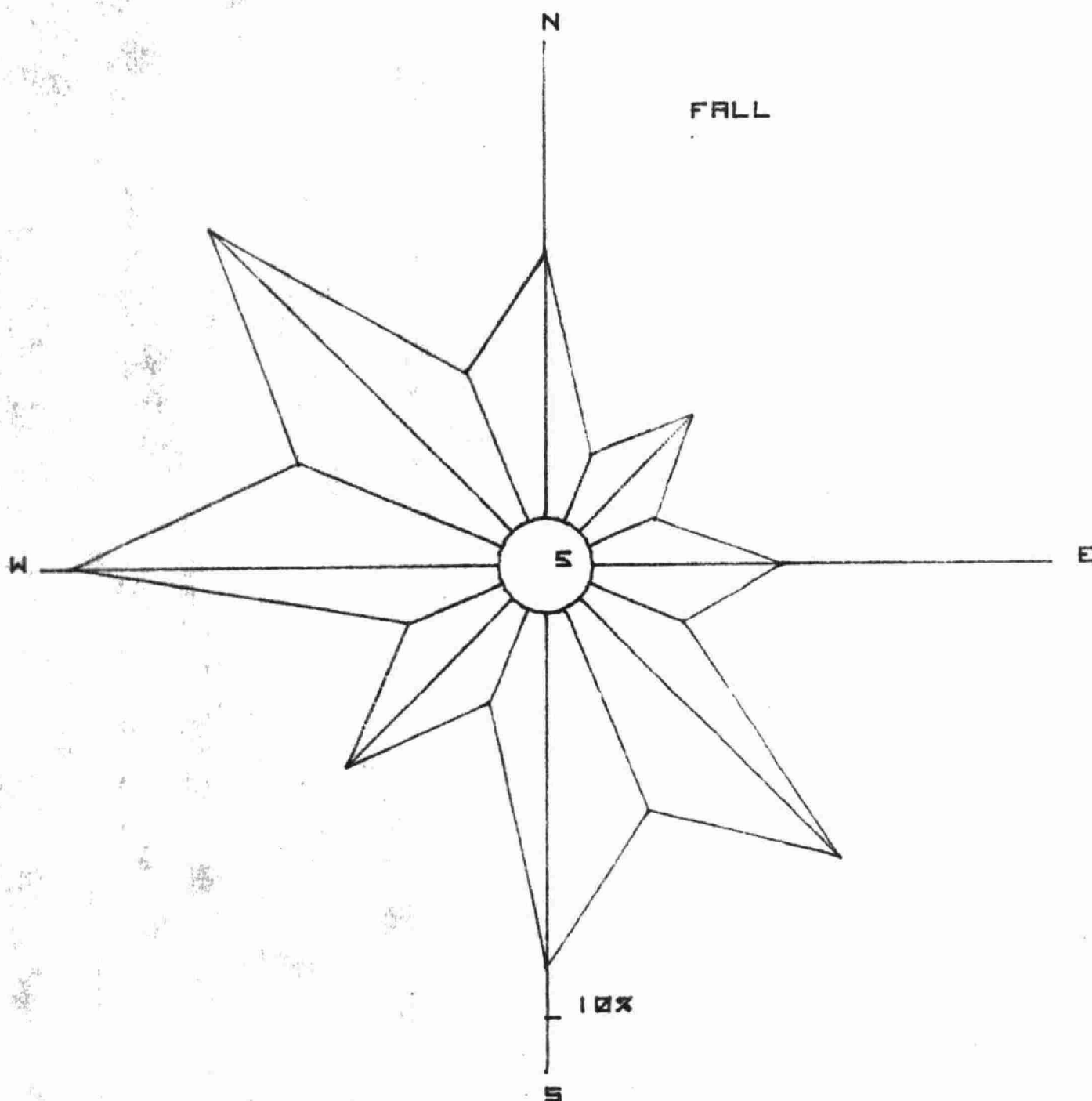


STATION INFORMATION

LOCATED AT HORTICULTURE EXPERIMENTAL FARM
4 KM E-NE OF TOWN, ON HWY 3. ON OBSTRUCTIONS.
HEIGHT 10.2 M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	3	6	6	4	2	2	3	6	6	7	9	18	9	7	4	4



STATION INFORMATION

LOCATED 2.8 KM TO N OF SIOUX LOOKOUT. ANEMOMETER IS ATTACHED TO 20 M BEACON TOWER. AREA IS HILLY AND HEAVILY TREED WITH MANY LAKES.
HEIGHT 10.2 M

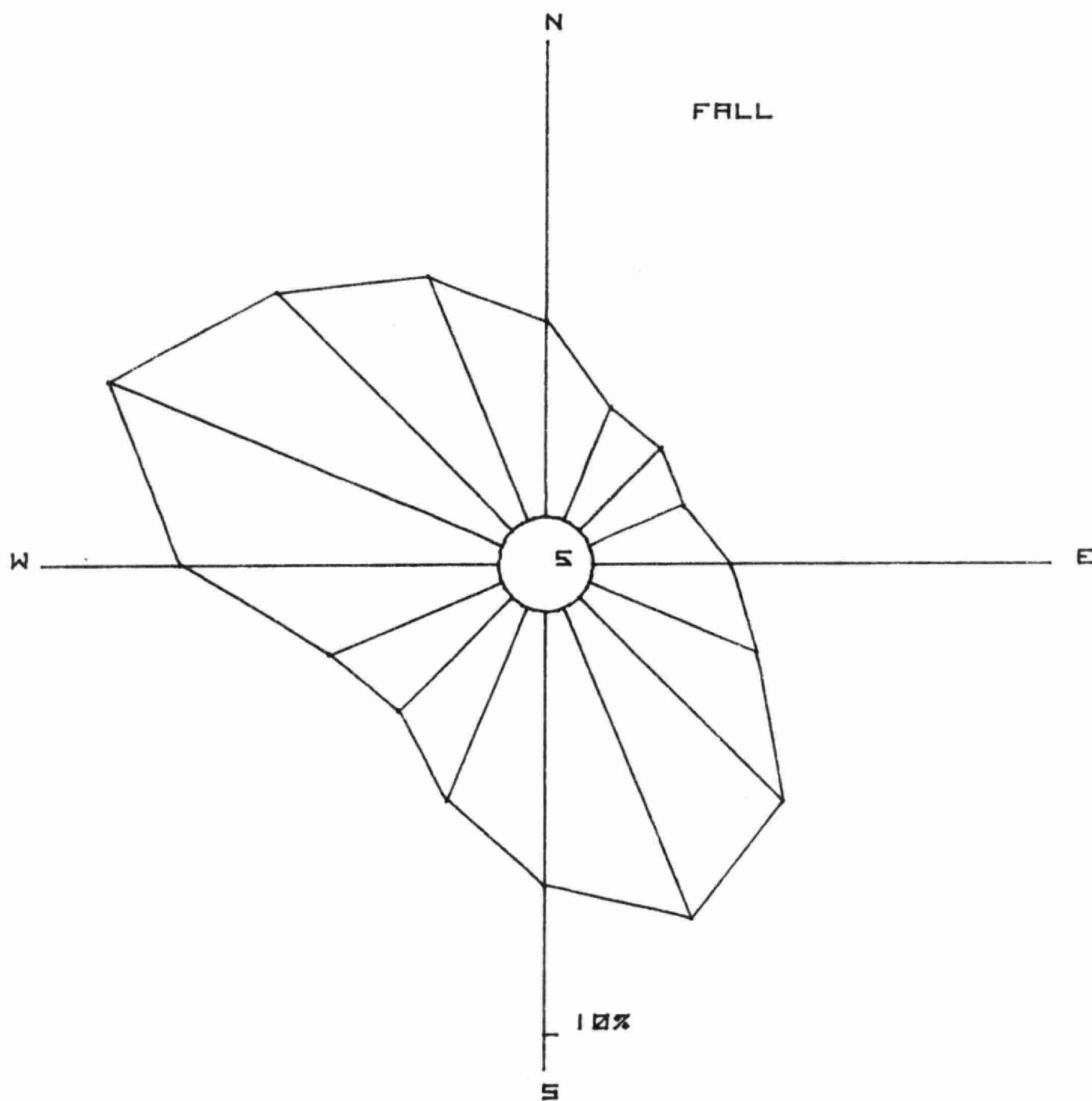
PERCENTAGE FREQUENCY

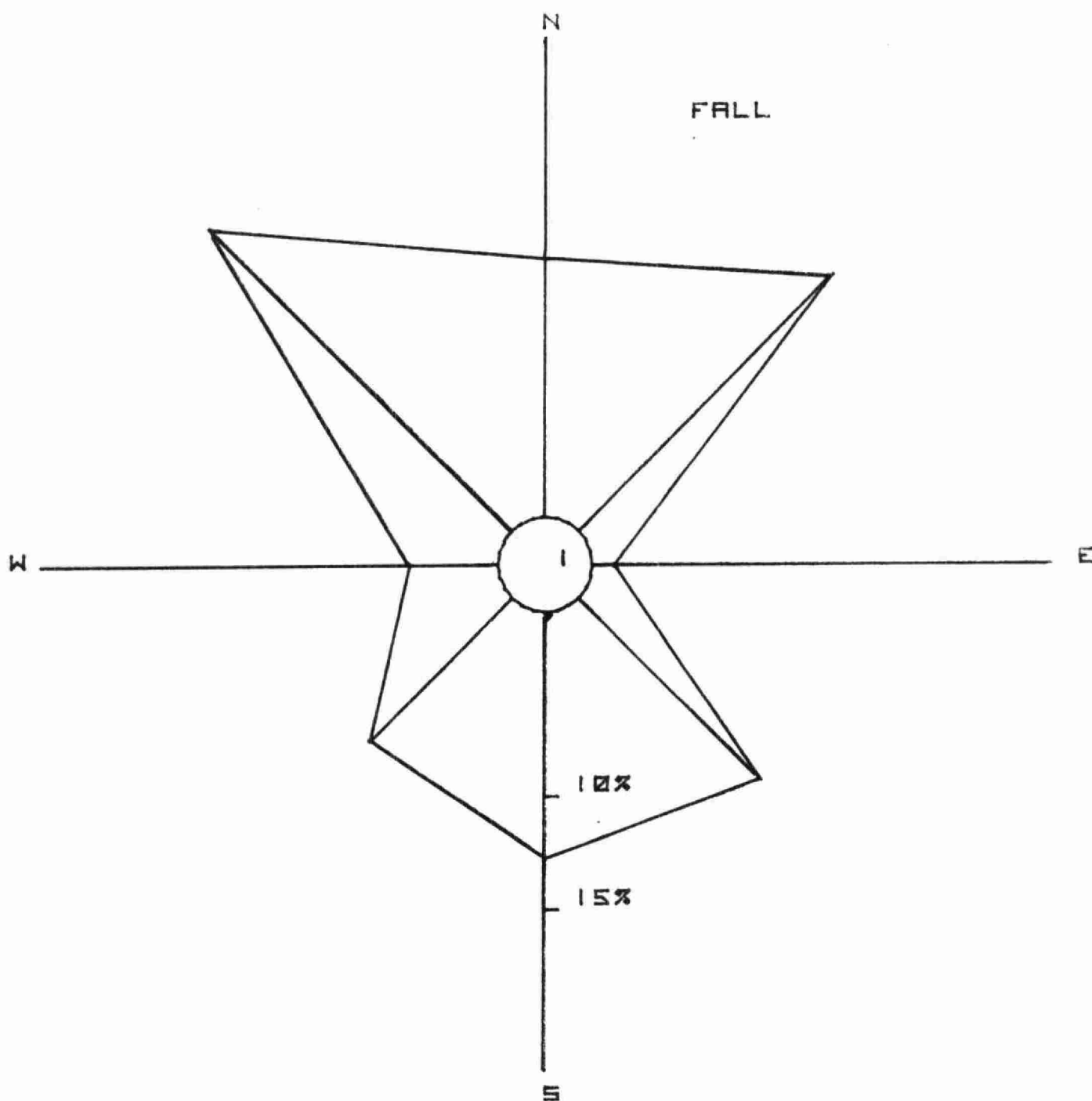
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
7	3	5	3	5	3	9	6	9	3	6	3	11	6	11	5	5

SIOUX LOOKOUT (RES) 1955-1972

(BIASES REMOVED)

73



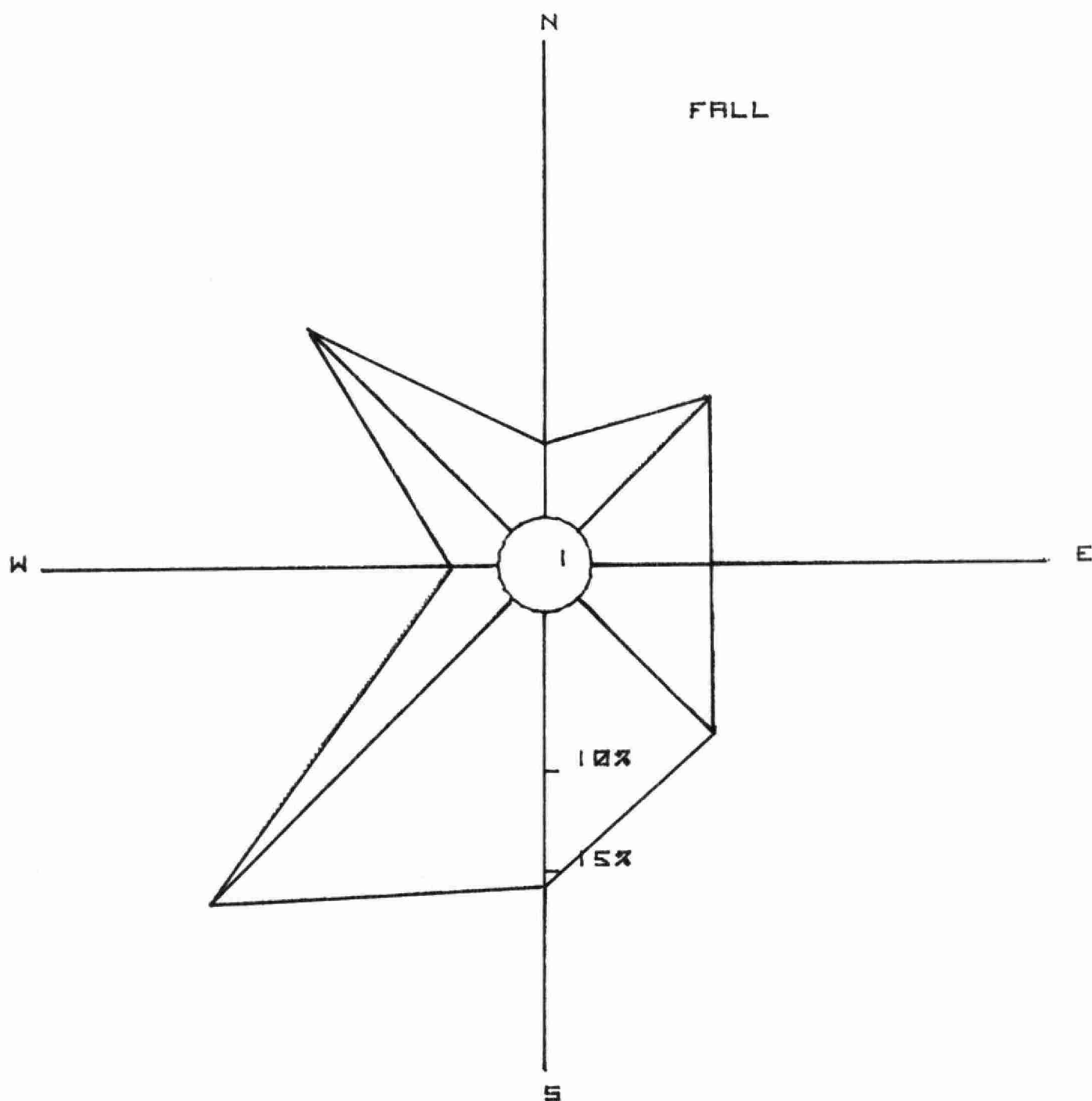


STATION INFORMATION

LOCATED ON SE TIP OF PATTERSON ISLAND WHICH IS 6.4 KM WIDE AND 8 KM LONG. SURROUNDING AREA DENSELY TREED WITH HEAVY SHRUBBERY. HEIGHT 11.1 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
14	18	3	13	13	11	6	21	1

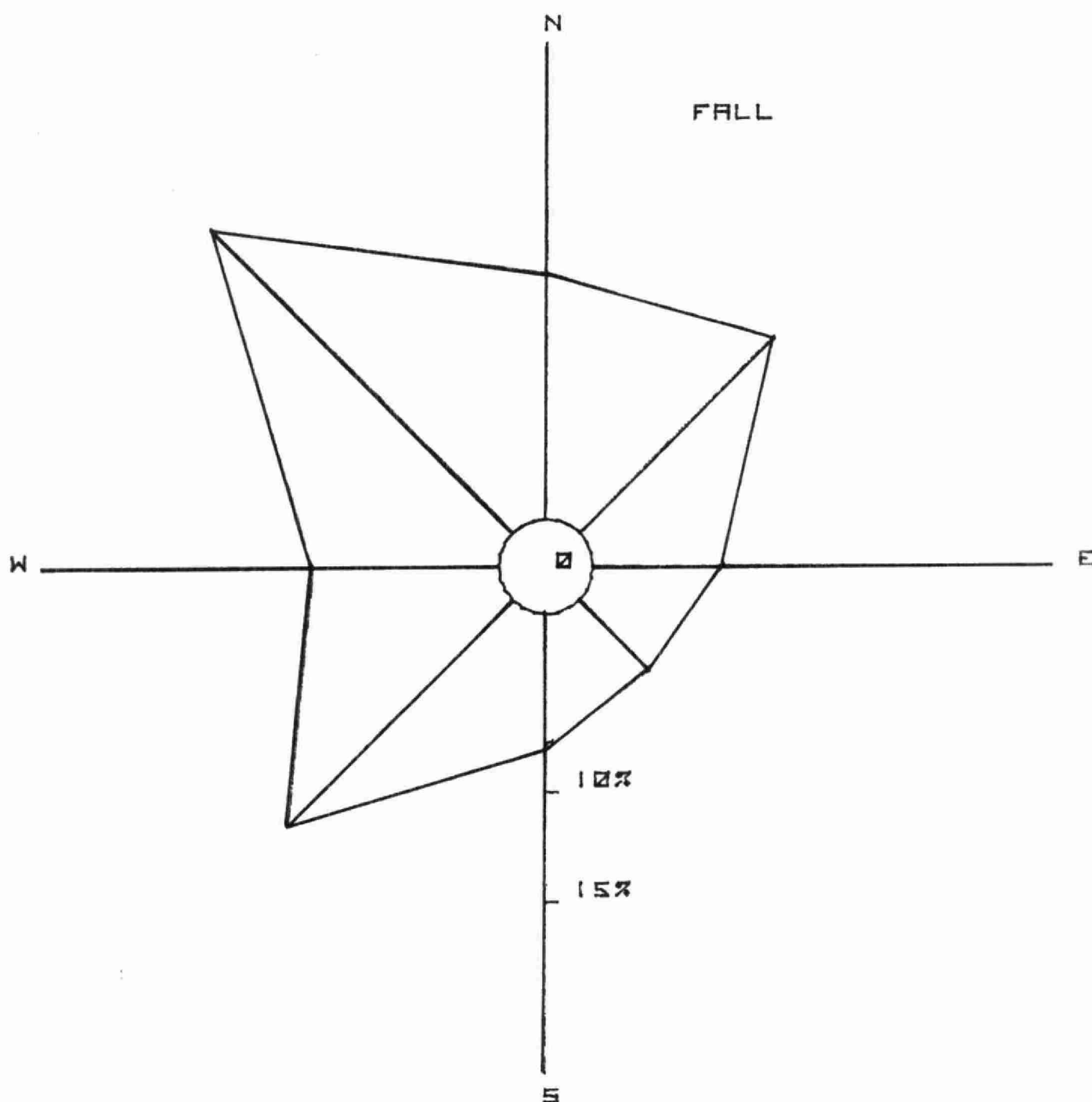


STATION INFORMATION

LOCATED S BANK SAUGEEN RIVER N END OF TOWN. AREA FLAT TO SW, ROLLING TO E AND N. OBSTRUCTION NS TO SSE WITH TREES SAME HEIGHT AS ANEMOMETER. HEIGHT 10.8 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
6	12	8	12	16	24	5	17	1

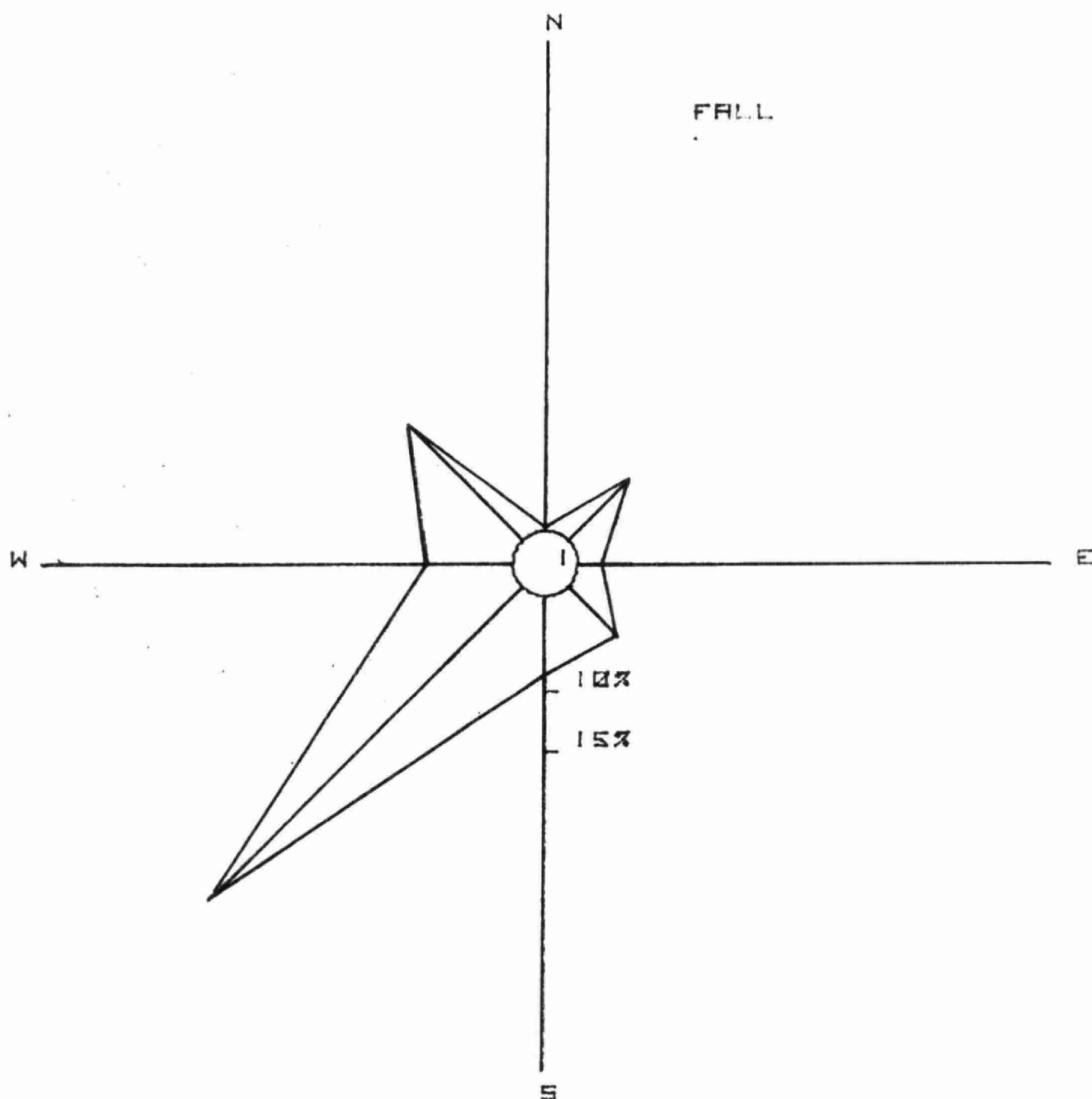


STATION INFORMATION

LOCATED AT LANDS AND FOREST STN. WOODED RIDGE NW OF STATION.
 E AND S EXPOSURES ON SOUTH BAY. SHELTERING FROM W AND N.
 HEIGHT 24.9 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
13	15	8	7	8	17	11	21	0



STATION INFORMATION

LOCATED

OUTSIDE N LIMITS OF CITY

IN FRUIT FARM AREA.

HEIGHT 11.4 M

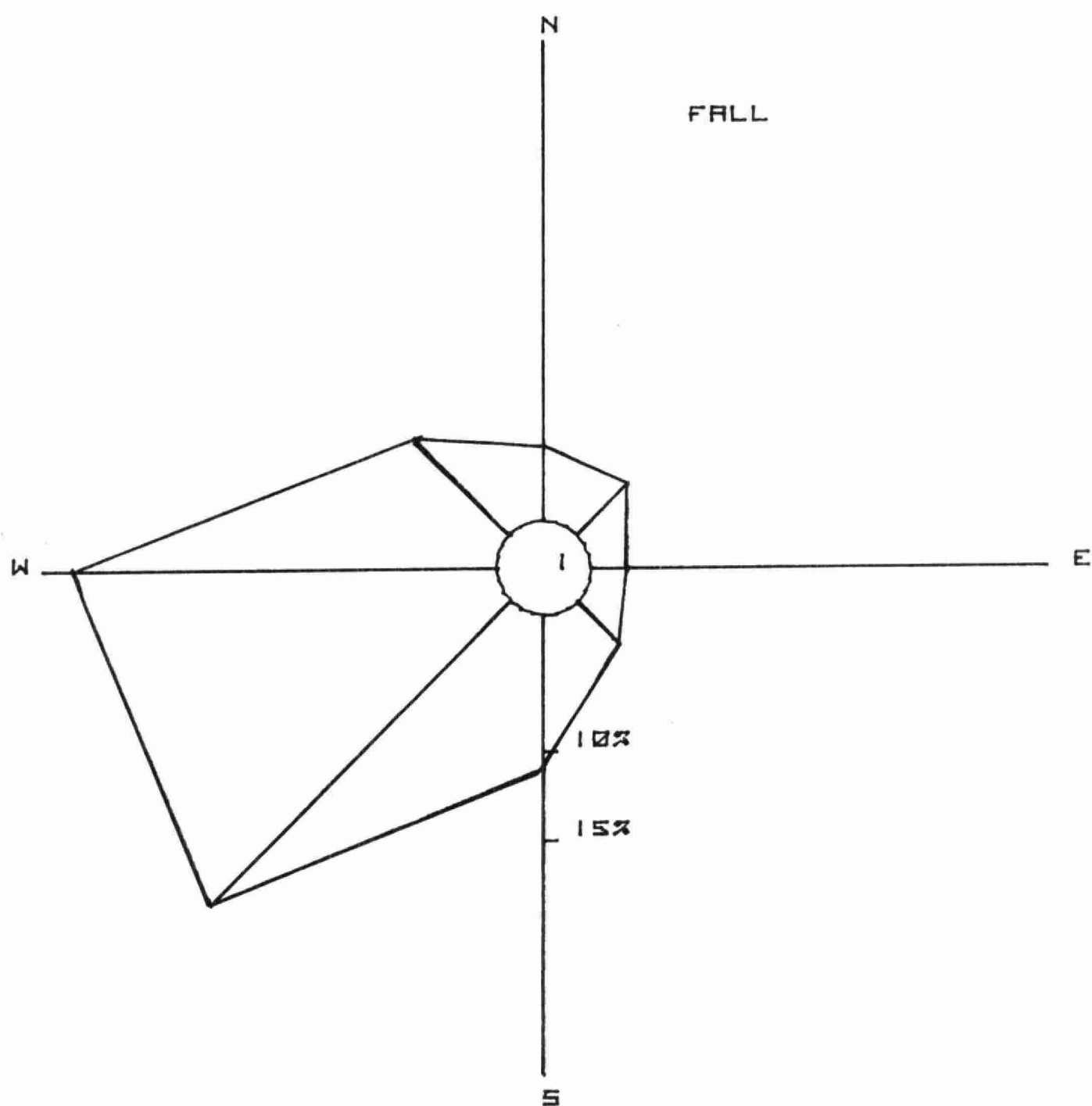
PERCENTAGE FREQUENCY

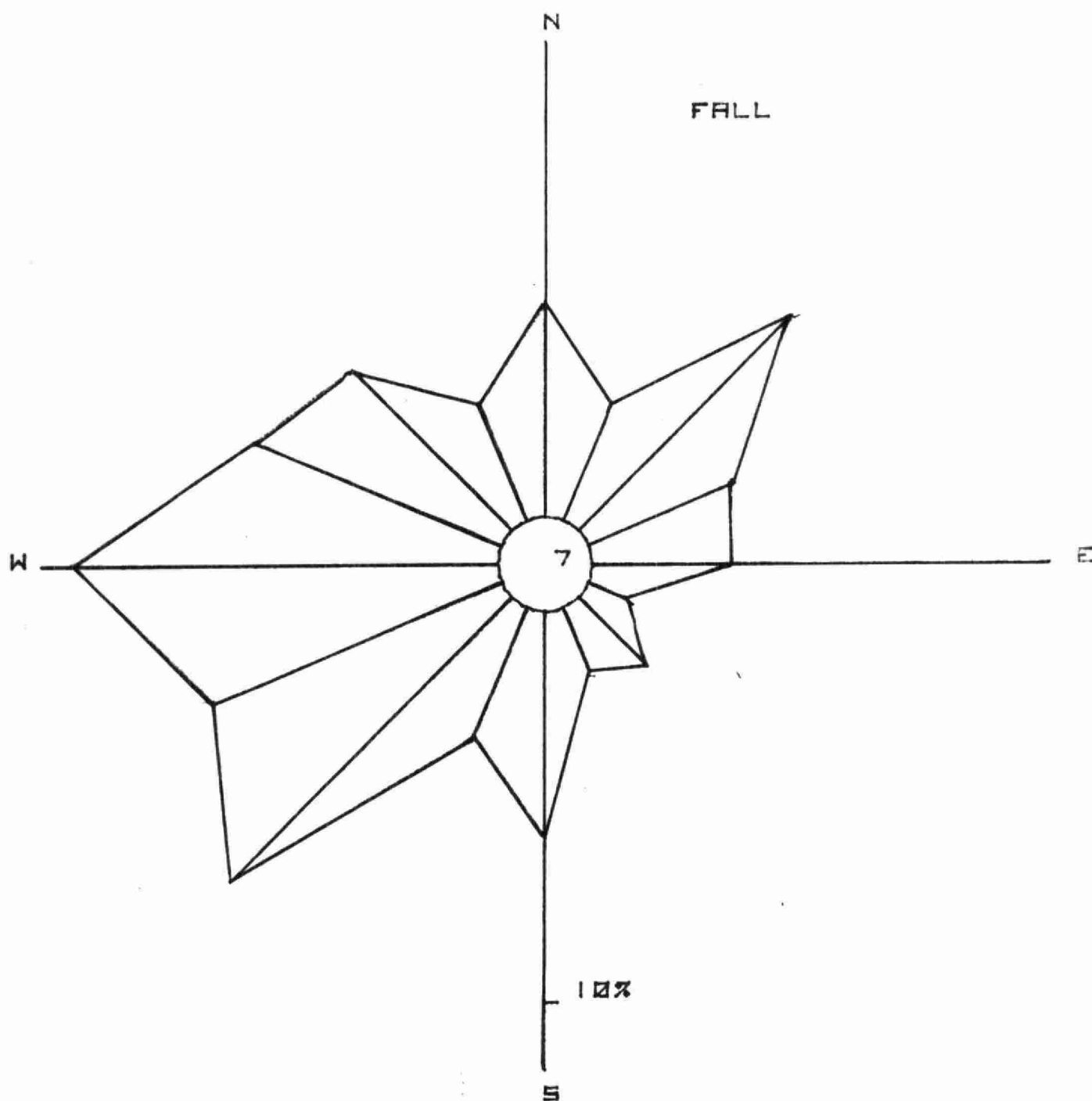
N	NE	E	SE	S	SW	W	NW	CALM
3	10	5	8	9	39	9	16	1

ST. CATHARINES (AES) 1955-1964

(BIASES REMOVED)

77





STATION INFORMATION

LOCATED 7.2 KM W-NW OF STIRLING ON CONCESSION RD. N OF MAIN RD.
 ROLLING COUNTRY IN ALL DIRECTIONS. TREES 45 M HIGH OBSTRUCTS TO W.
 HEIGHT 14.2 M

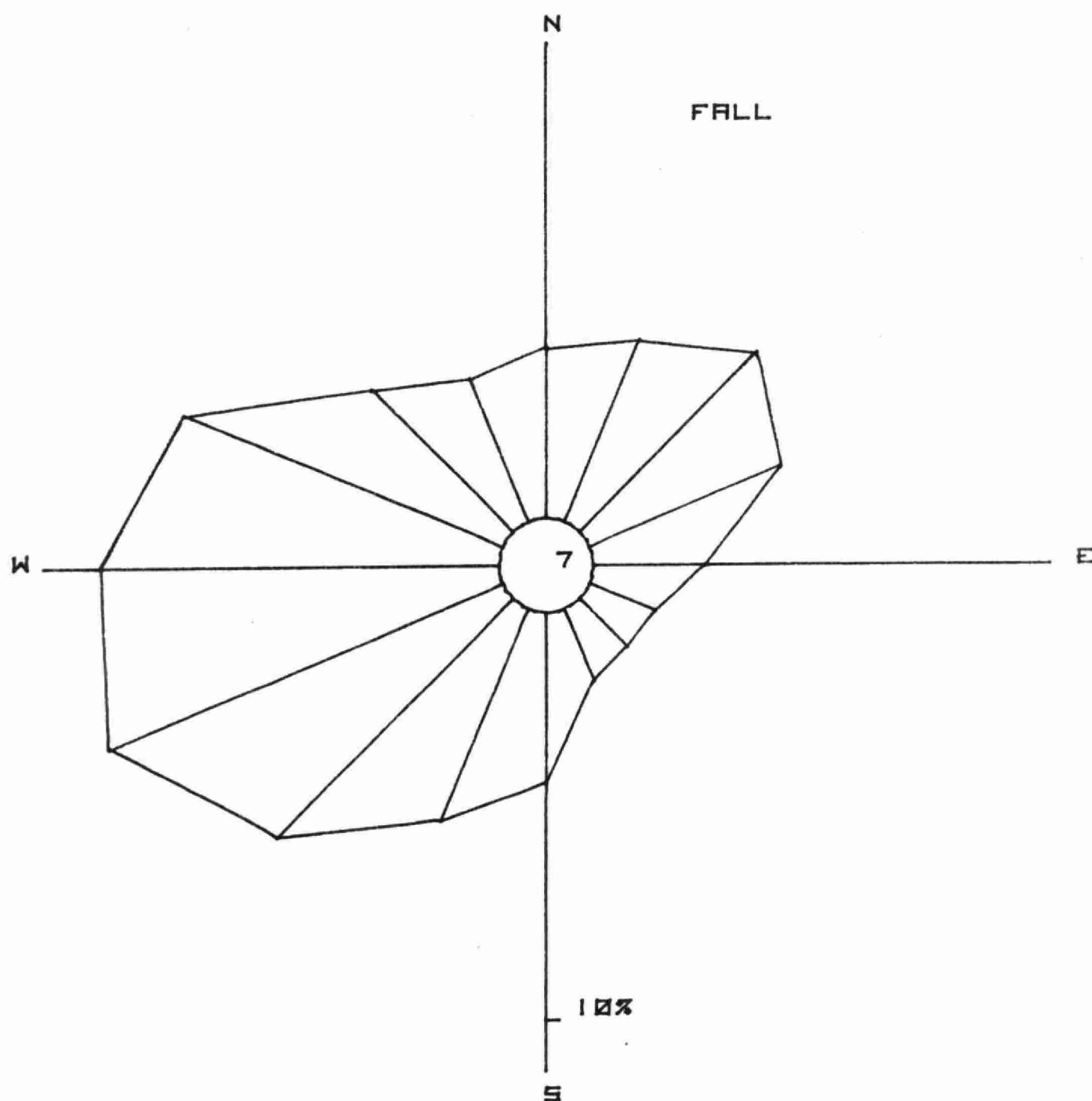
PERCENTAGE FREQUENCY

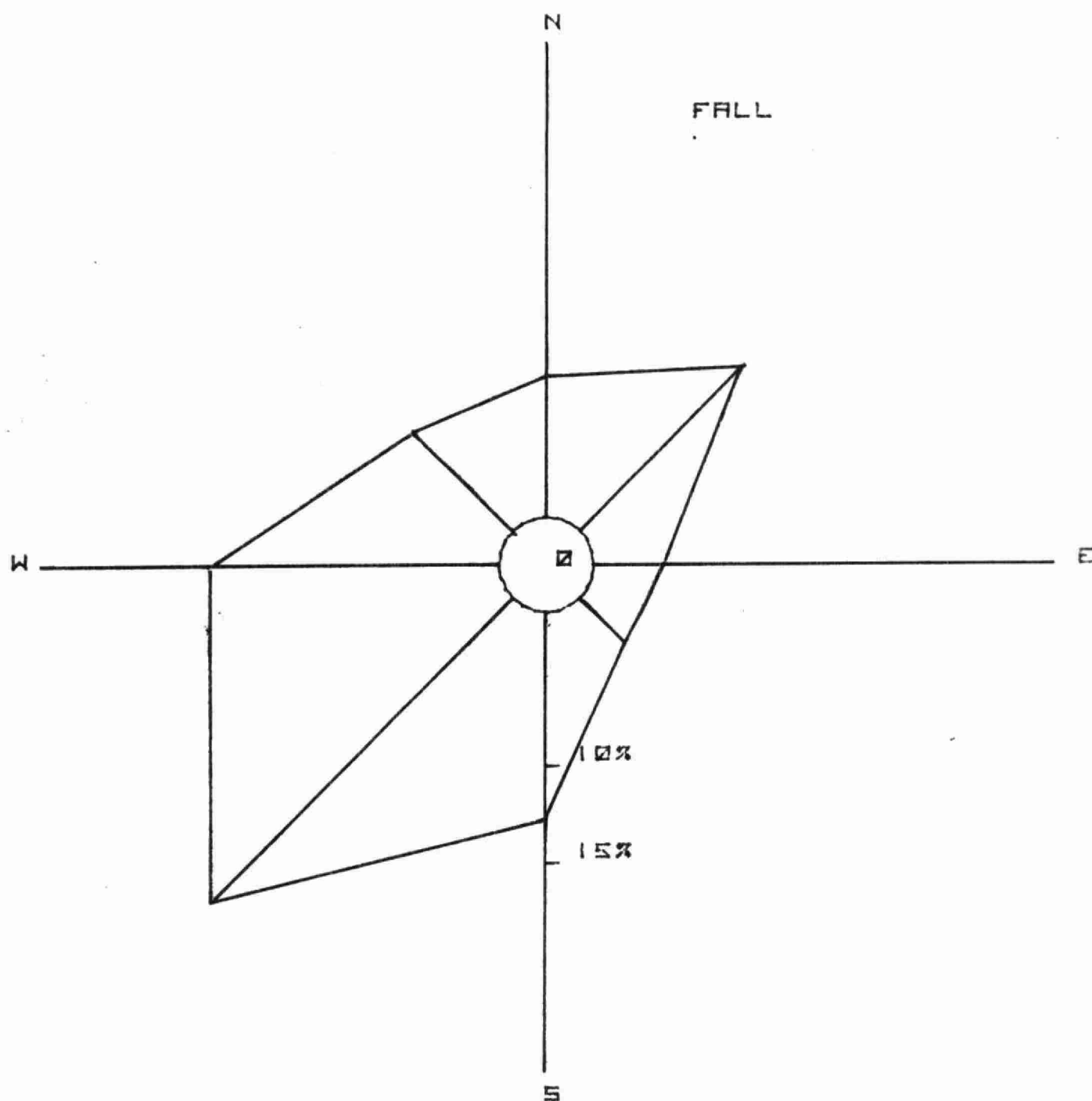
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	4	8	5	4	2	4	3	7	4	10	3	11	7	6	4	7

STIRLING (AES) 1955-1968

(BIASES REMOVED)

78.





STATION INFORMATION

LOCATED

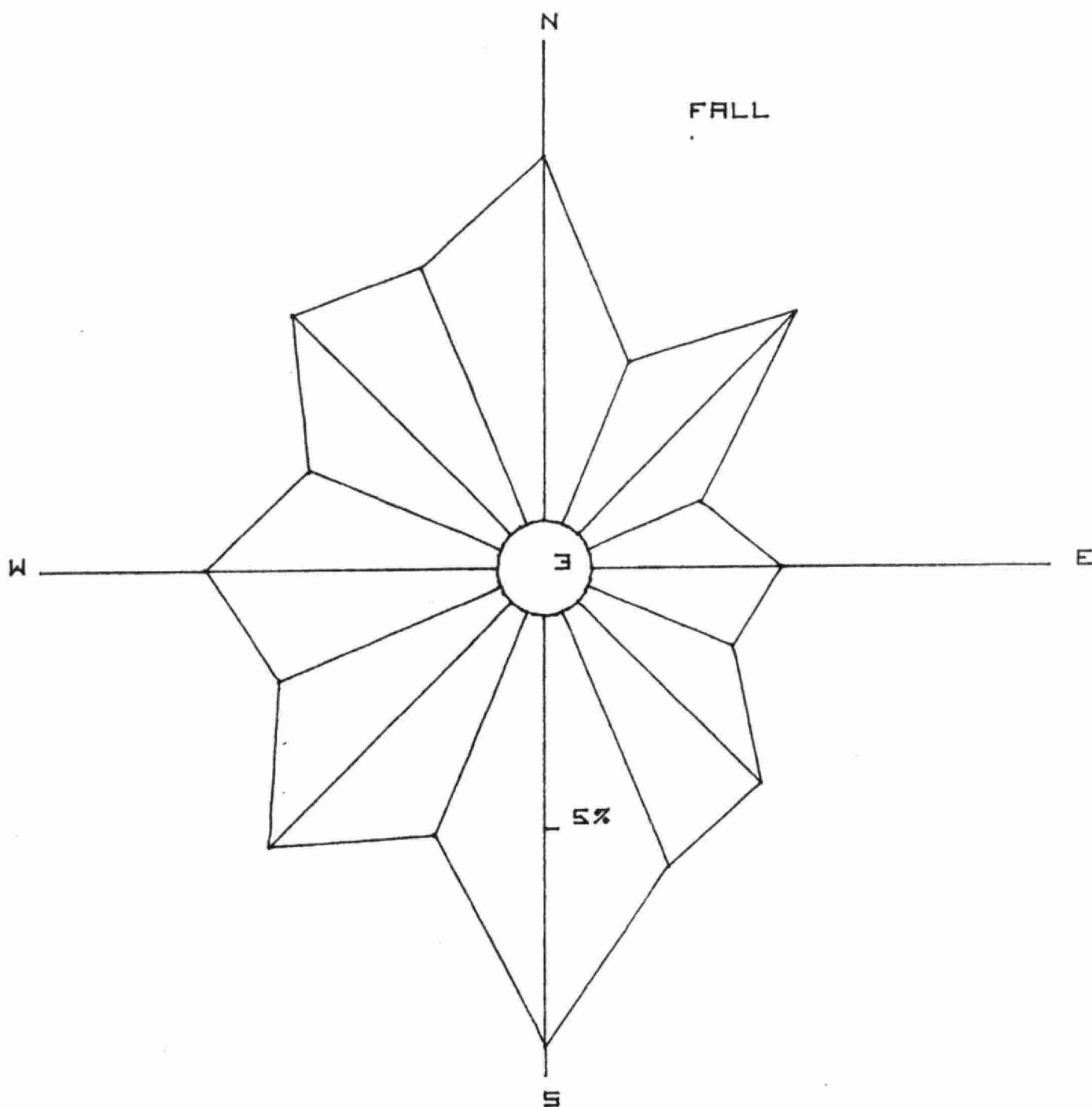
ON J TENNYSON'S PROPERTY

GRID REFERENCE 96186-47476

HEIGHT 10.1 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	14	6	6	13	24	17	10	0



STATION INFORMATION

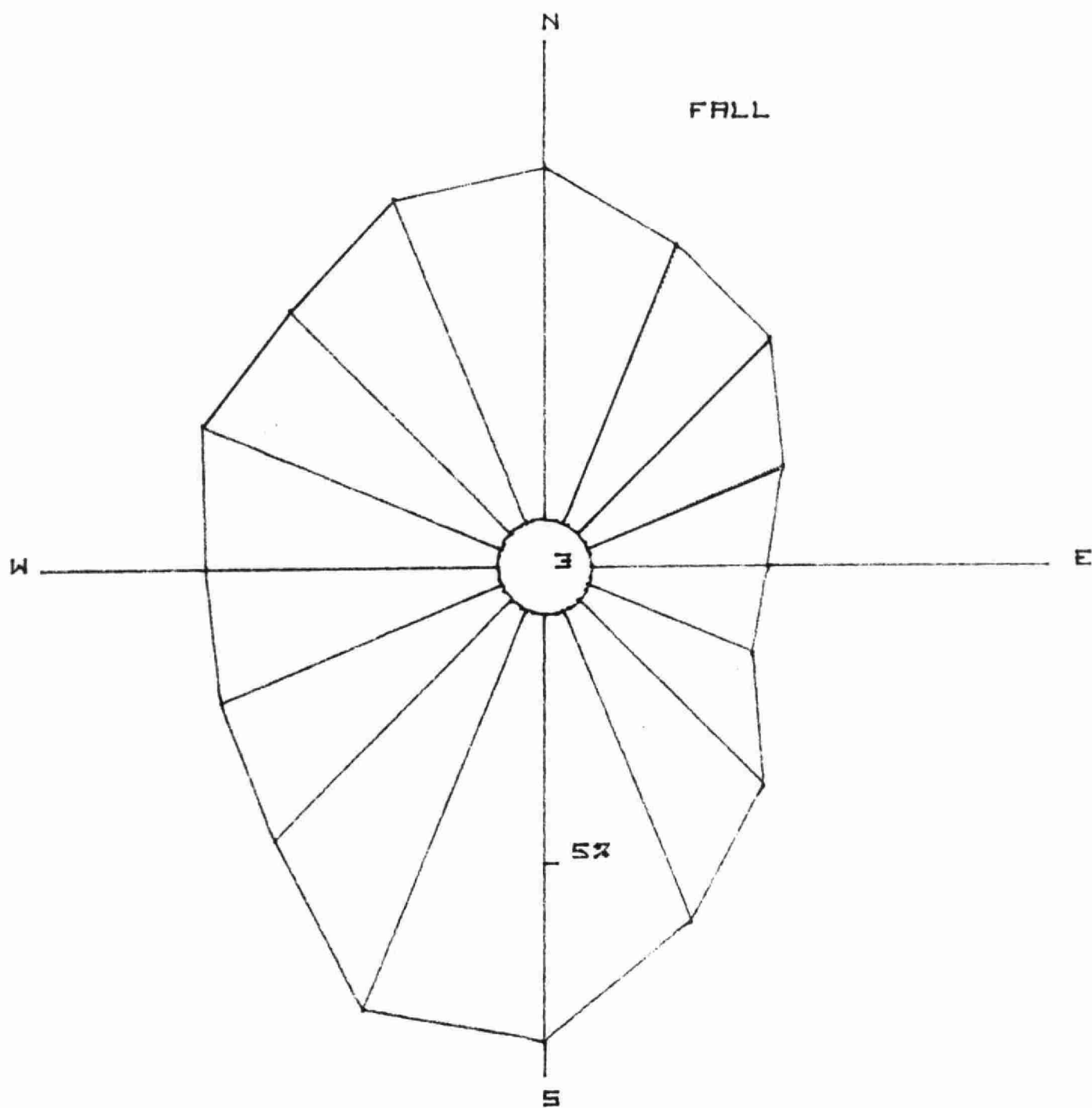
LOCATED 24 KM NE OF CITY ON PLATEAU. VALLEY THIS IS 16 KM LONG
ABOUT 4.6 KM W. COUNTRY IS ROLLING
HEIGHT 10.2 M

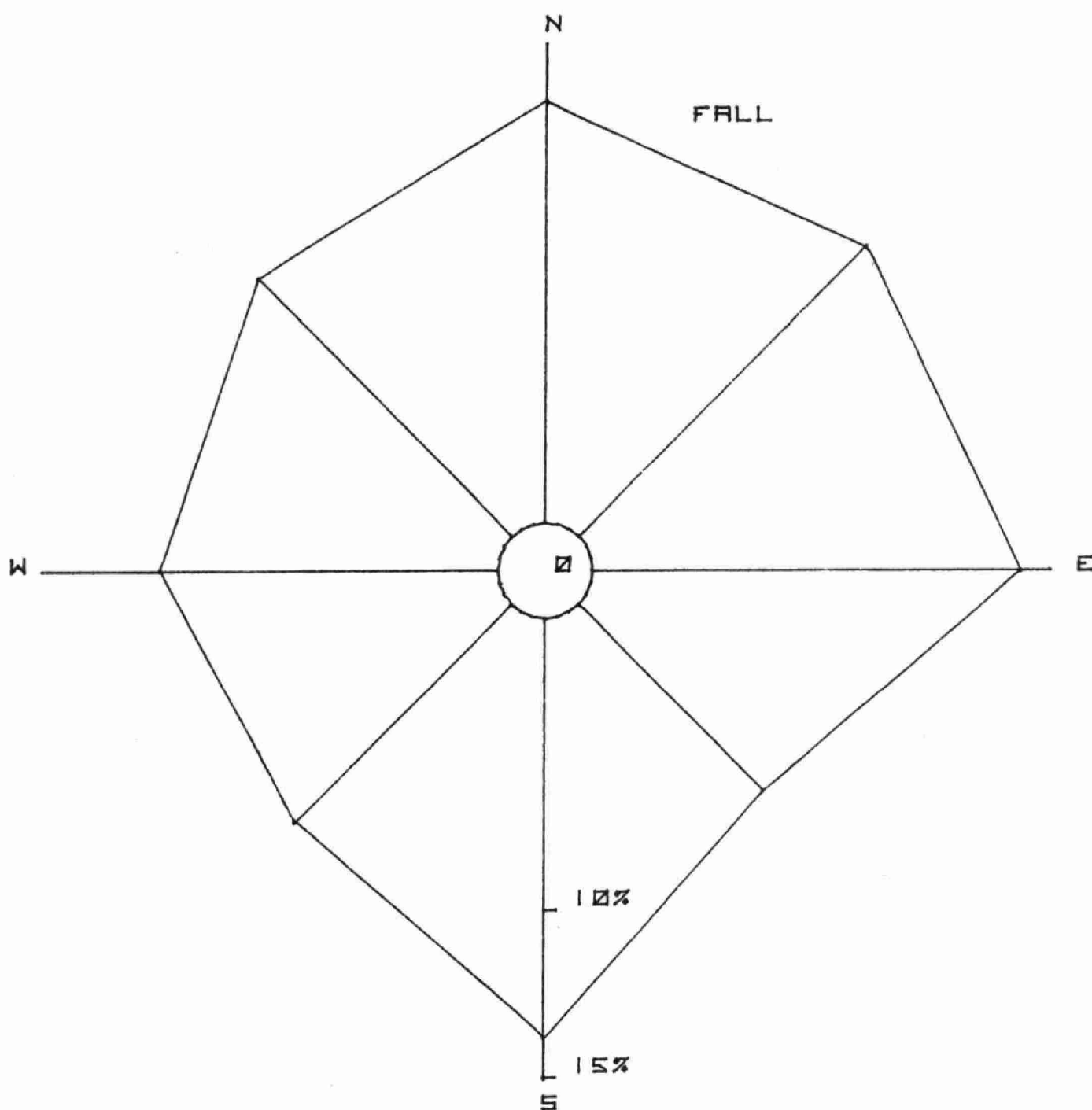
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	NWN	NW	NNW	CALM
8	4	7	3	5	4	6	6	9	6	8	6	7	5	7	6	5

SUDBURY (A) (AES) 1955-1968
(BIASES REMOVED)

80

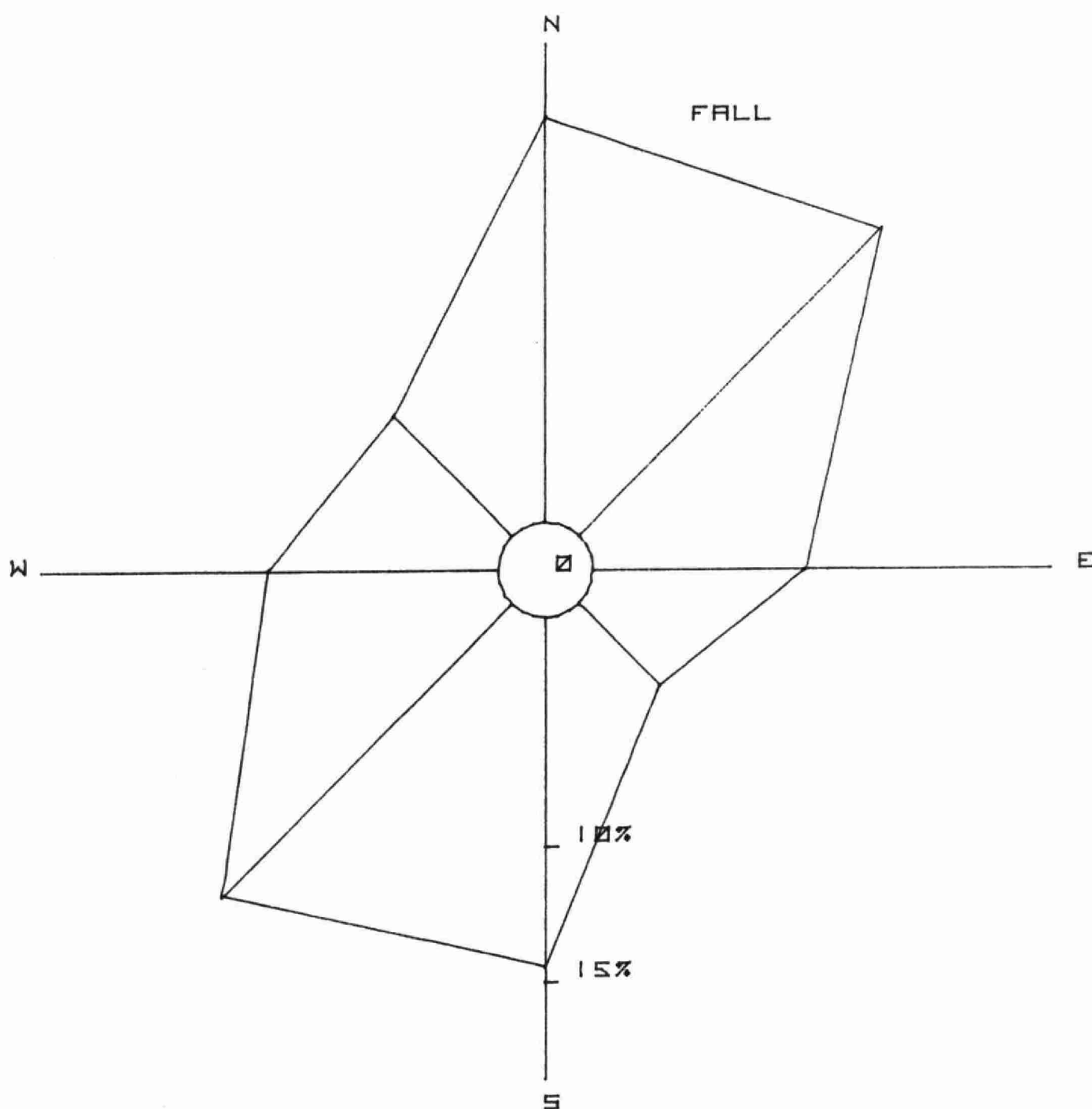




STATION INFORMATION
 LOCATED
 ON WATER TANK
 ASH ST, SUDBURY
 HEIGHT 10.1 M

PERCENTAGE FREQUENCY

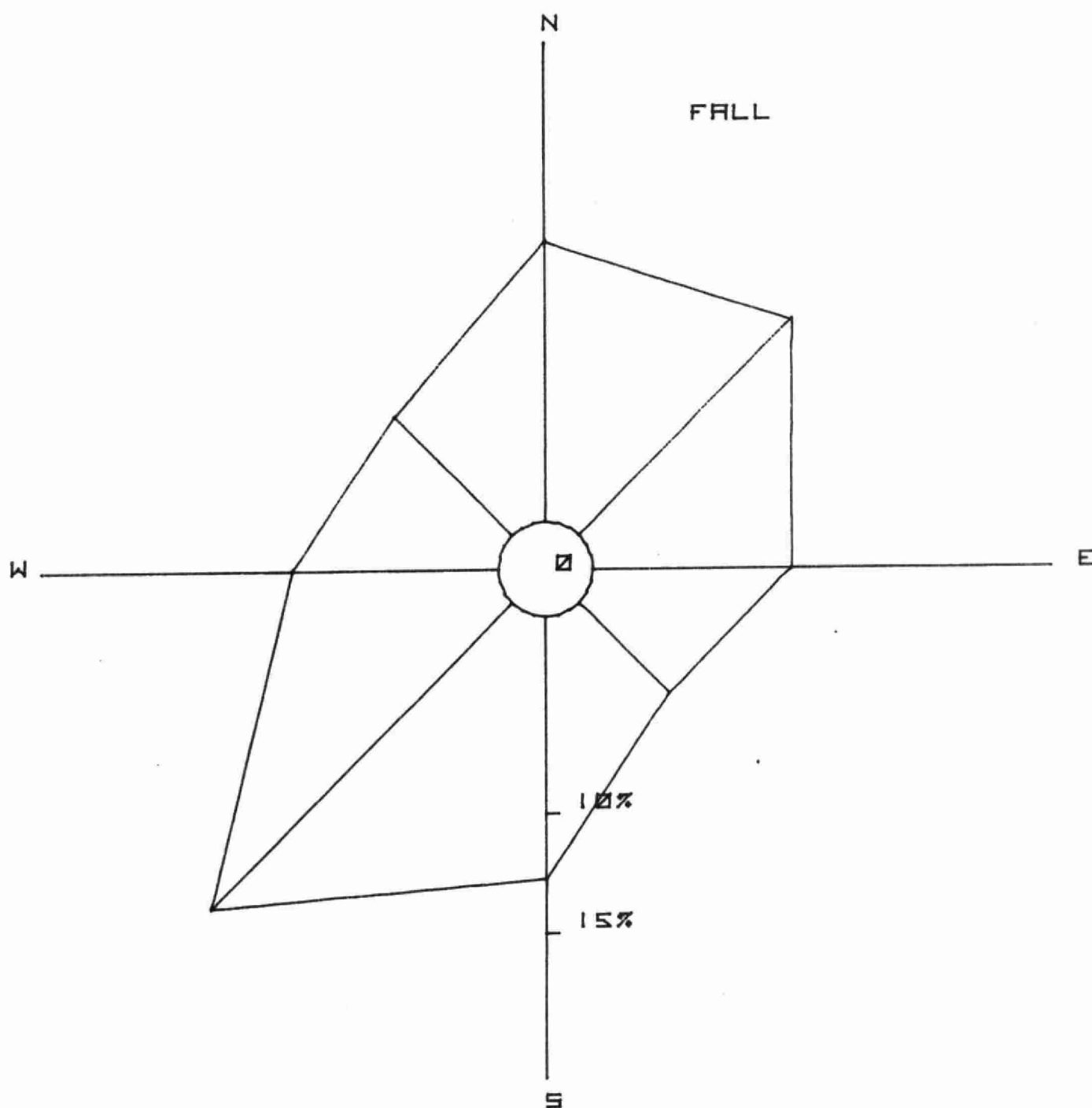
N	NE	E	SE	S	SW	W	NW	CALM
14	14	14	9	14	11	11	12	0



STATION INFORMATION
 LOCATED
 ON CKNC TV TOWER
 699 FROOD RD, SUDBURY
 HEIGHT 10.1 M

PERCENTAGE FREQUENCY

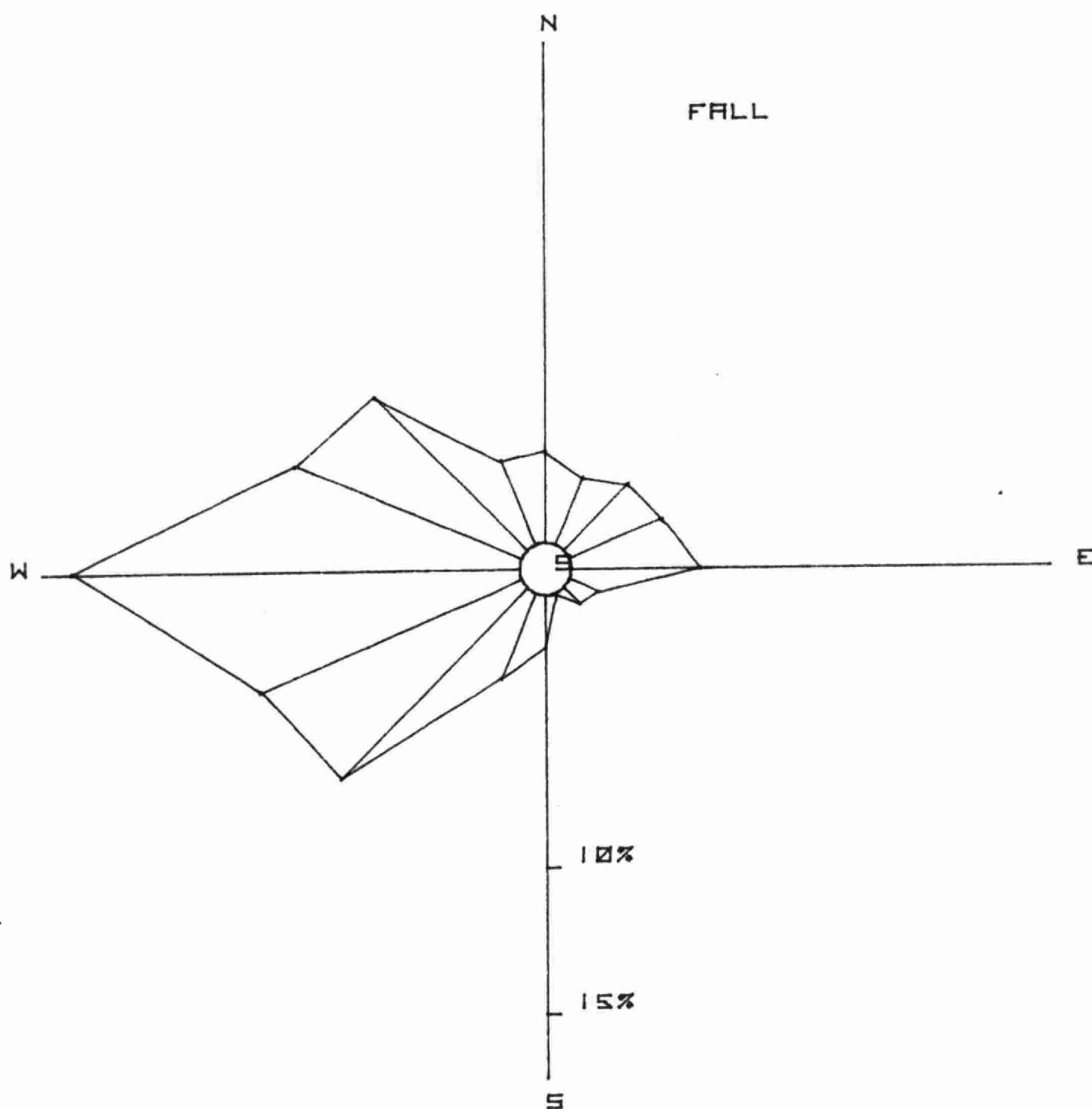
N	NE	E	SE	S	SW	W	NW	CALM
71	18	10	6	14	17	10	8	0



STATION INFORMATION
 LOCATED
 ON CKNC TV TOWER
 699 FROOD ROAD, SUDBURY
 HEIGHT 116.9 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
14	15	11	7	13	20	11	9	0



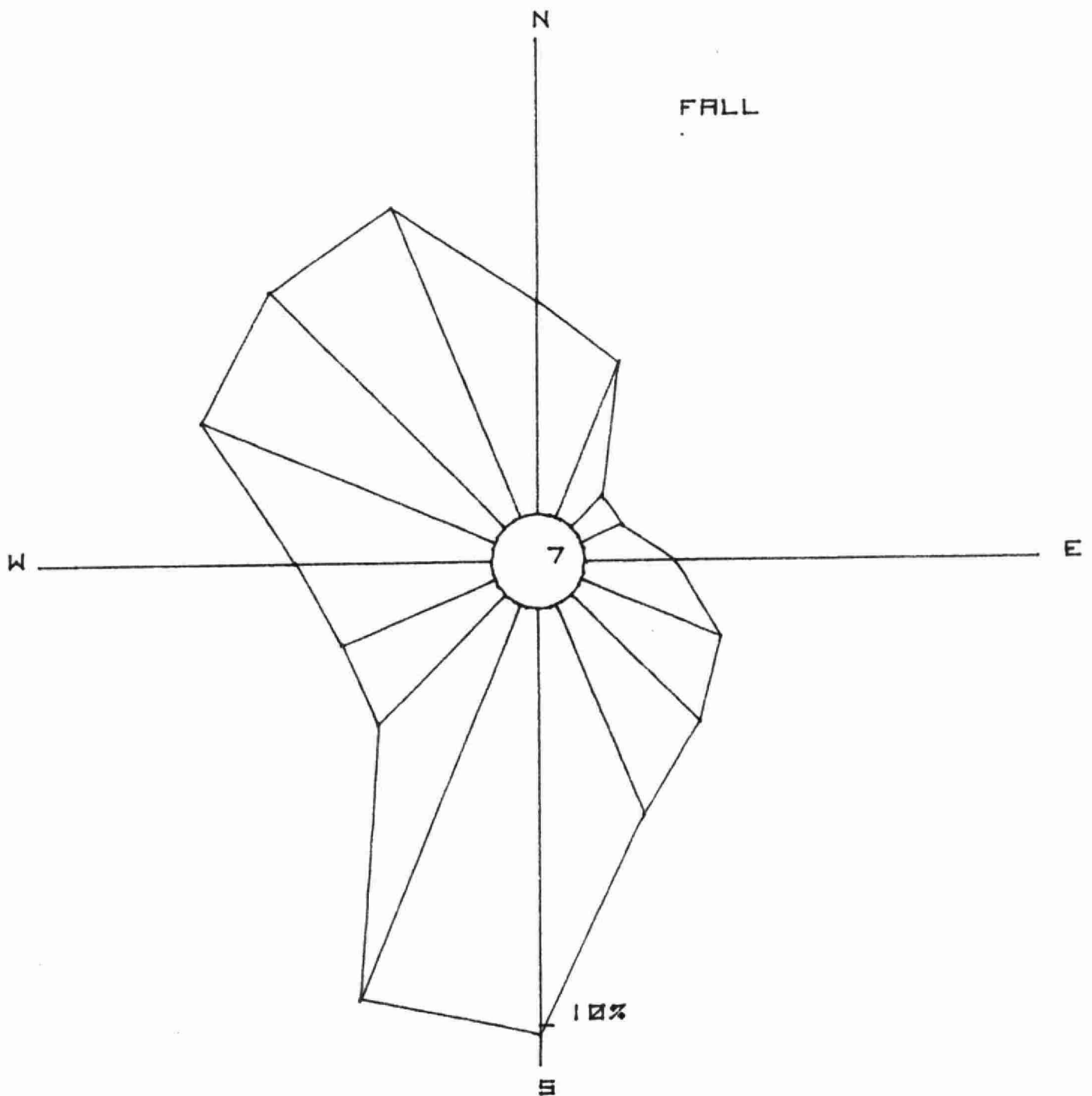
STATION INFORMATION

LOCATED 8 KM W OF LAKE SUPERIOR. HIGH GROUND ALL DIRECTIONS EXCEPT
E. LOCAL AREA FLAT. MT MCKAY 3.2 KM TO S.
HEIGHT 10.2 M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	3	4	4	5	2	2	1	3	4	10	11	16	9	8	4	9

TIMMINS (AES) 1955-1972

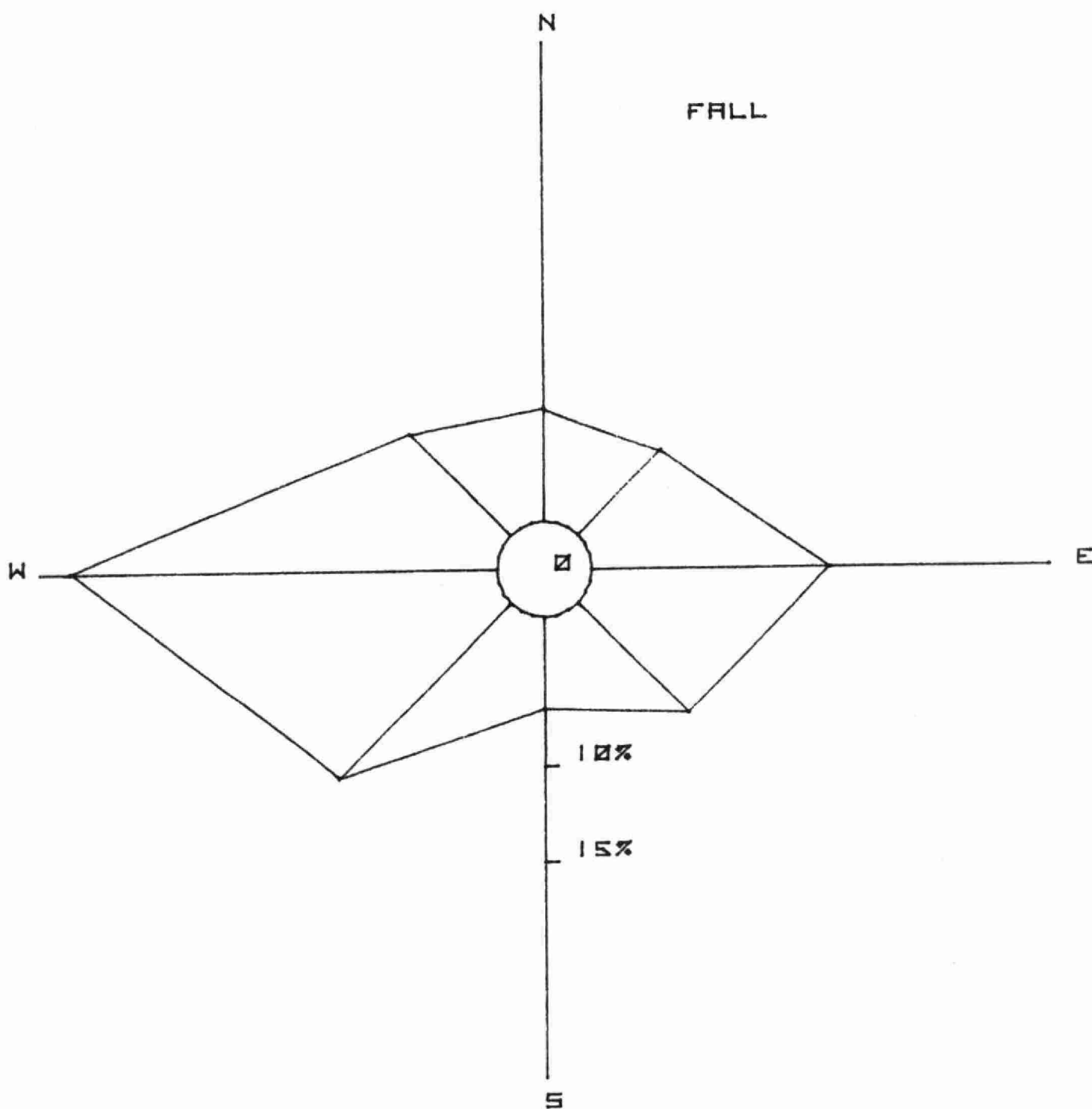


STATION INFORMATION

LOCATED IN BUSH AND FOREST COUNTRY WITH SLIGHT ROLL AND ODD HILL.
 NO OBSTRUCTIONS.
 HEIGHT 11.6 M

PERCENTAGE FREQUENCY

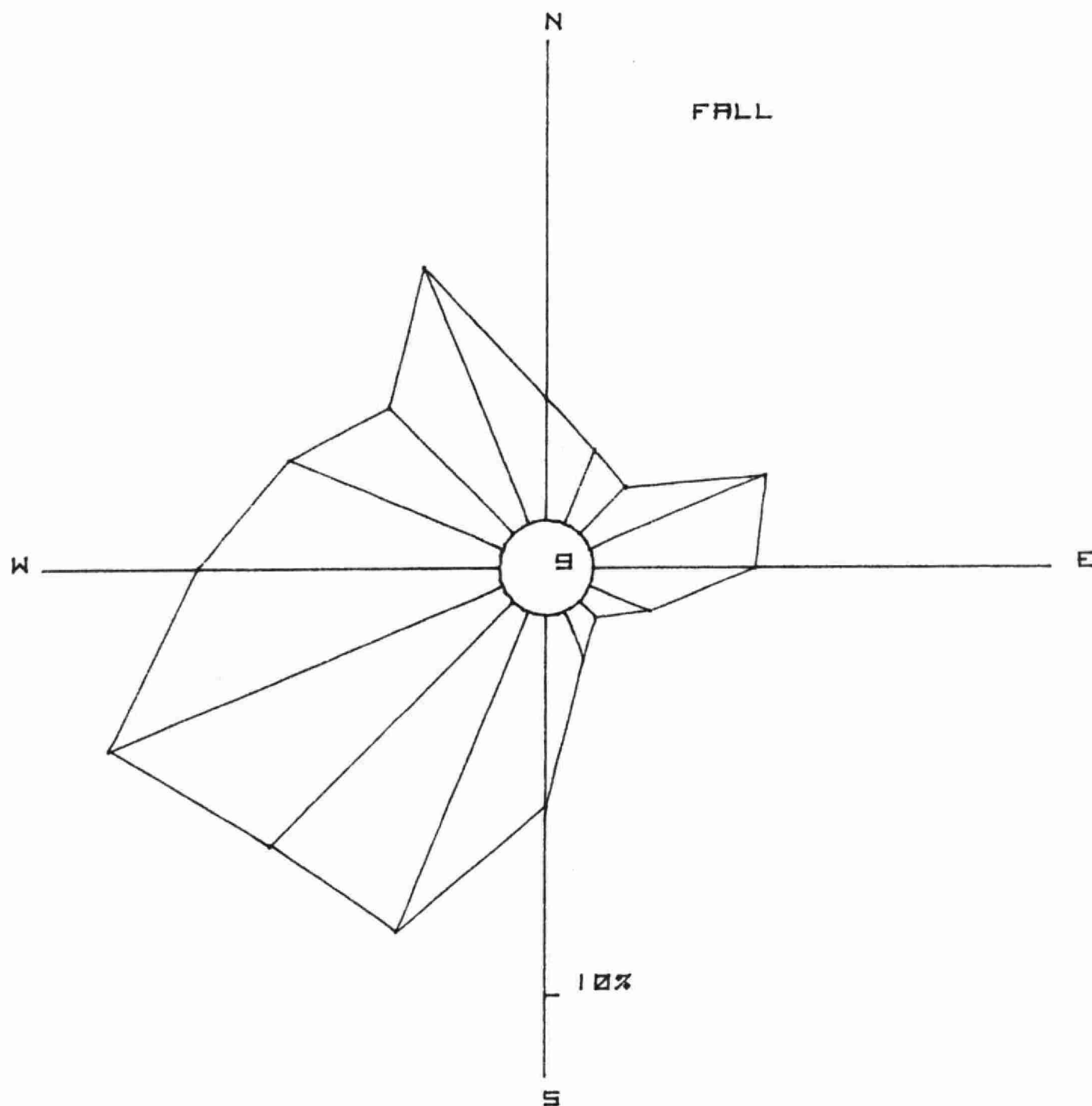
N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	5	2	2	3	5	5	6	10	10	5	5	5	8	8	8	7



STATION INFORMATION
LOCATED
AT BRUCE PS ON LARCHMOUNT AVE
IN TORONTO
HEIGHT 21.5 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
8	9	15	11	7	15	25	10	0

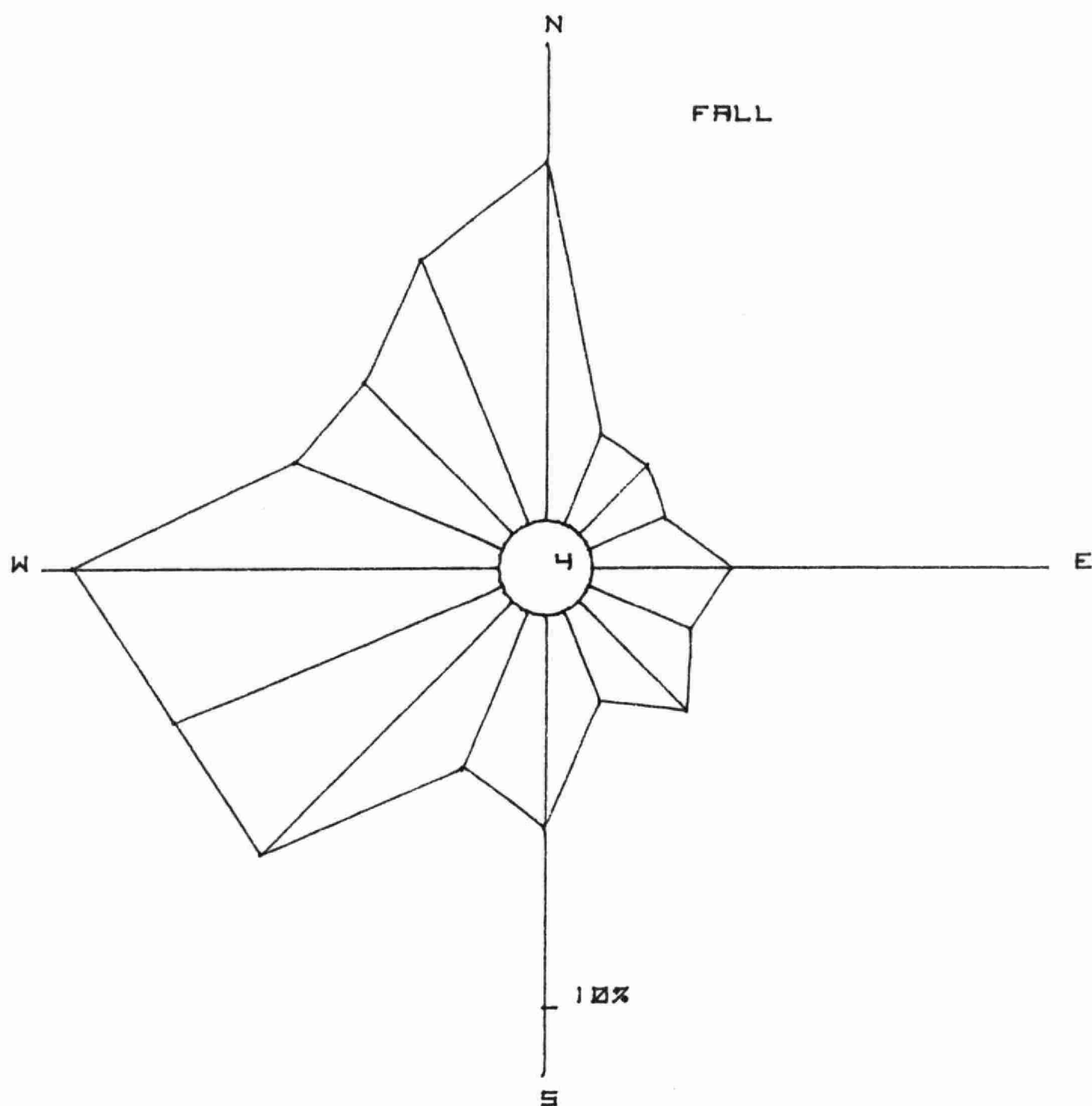


STATION INFORMATION

LOCATED ON KEELE ST. 2.4 KM N OF MACDONALD CARTIER FREEWAY.
 AREA GENERALLY FLAT. APPARENT EEDY EFFECT FROM N THROUGH E DUE TO
 BLDGS IN AREA. HEIGHT 10.2M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	3	3	6	5	3	2	2	6	9	9	11	8	7	5	8	9

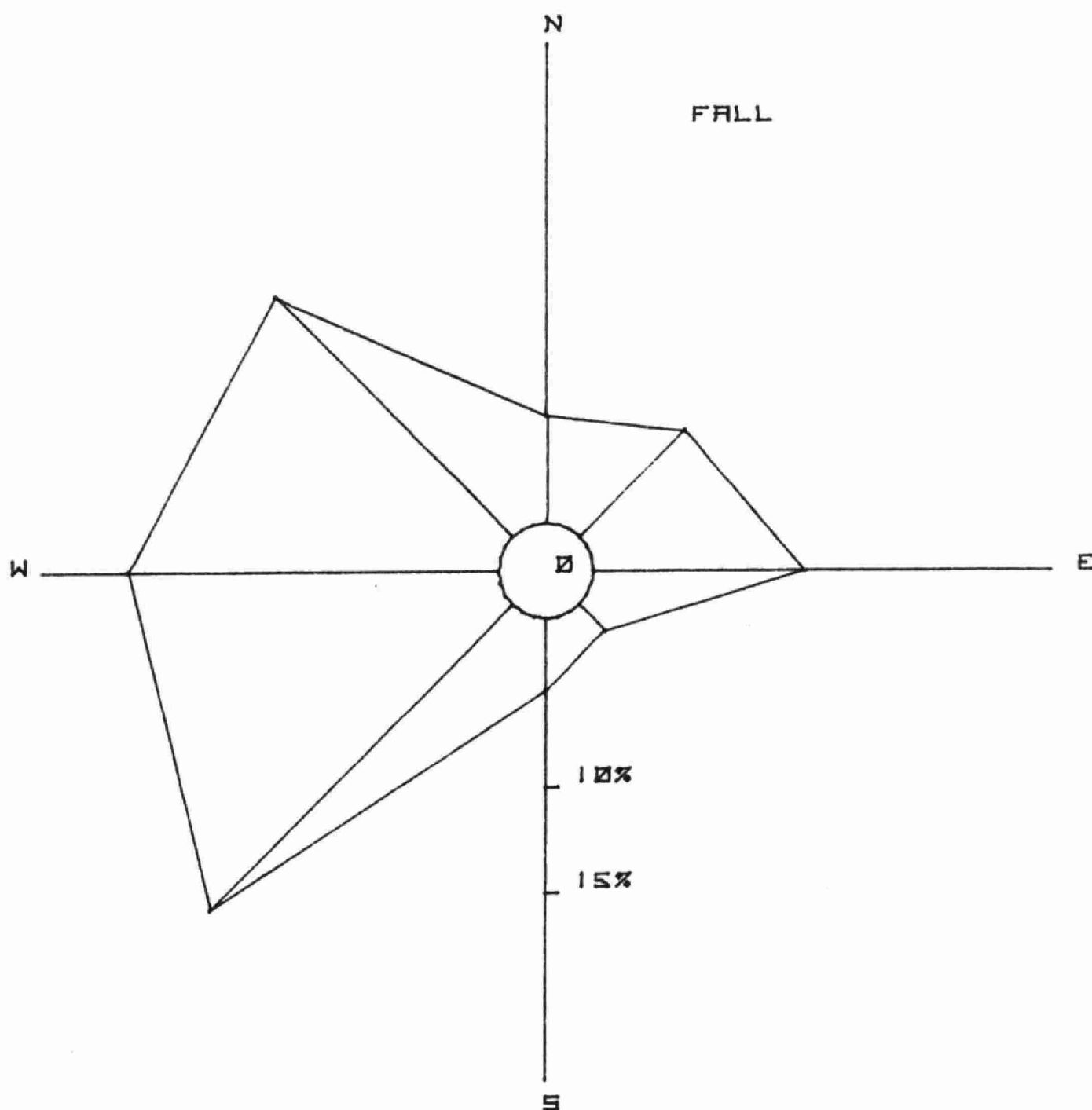


STATION INFORMATION

LOCATED ON SLIGHTLY ROLLING TO FLAT GROUND.
 ETOBICOKE CREEK IN VALLEY TO W. OCCASIONAL
 TREES IN OPEN COUNTRY. LAKE ONTARIO 11 KM SE.
 HEIGHT 10.2 M.

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
10	4	3	3	4	4	5	3	6	5	9	9	11	6	6	7	4



STATION INFORMATION

LOCATED

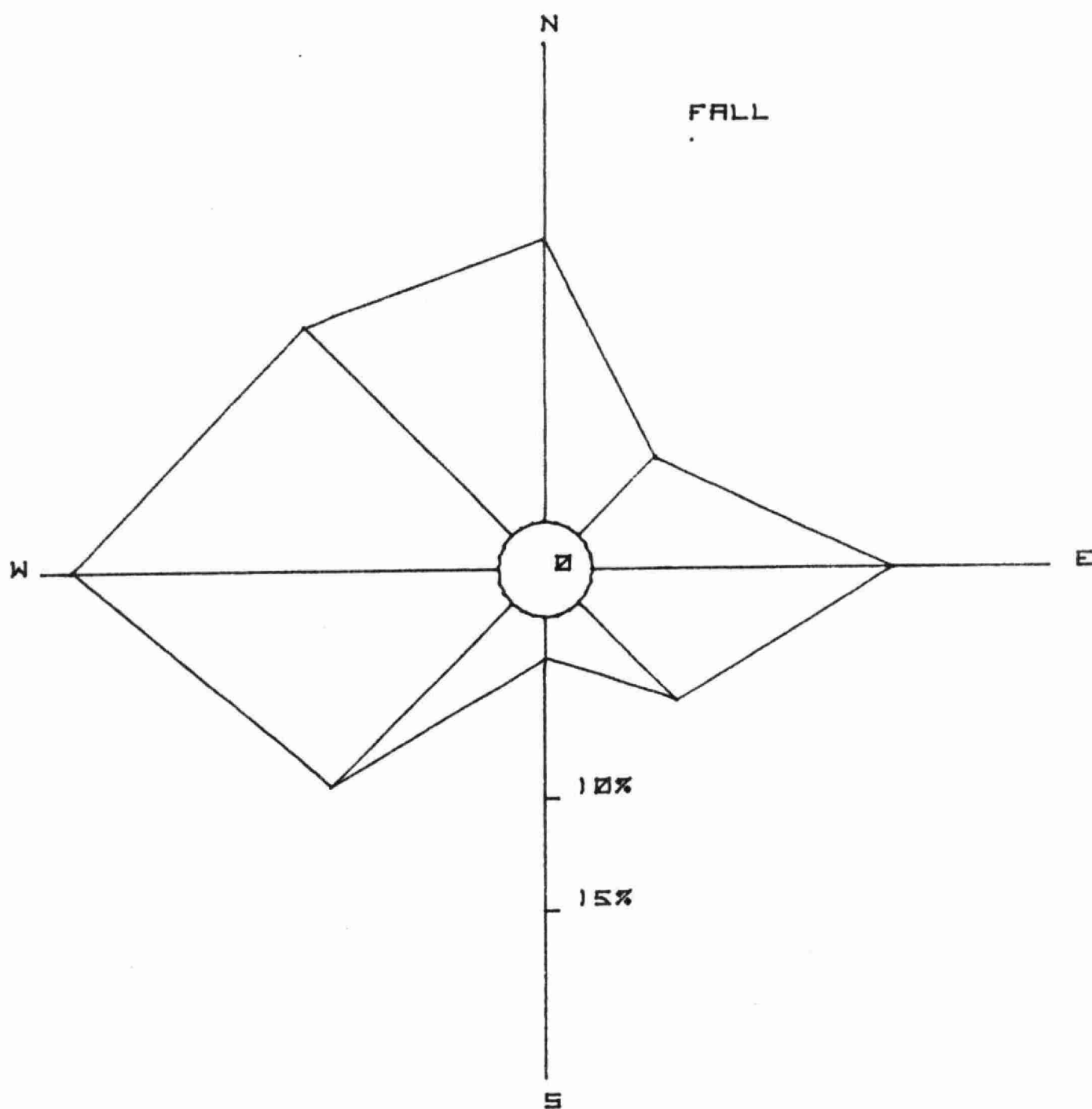
ON CREST OF SMALL HILL IN OPEN COUNTRY

19 KM NE OF CENTRE OF TORONTO

HEIGHT 14.8 KM

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
7	9	12	4	6	23	20	18	1

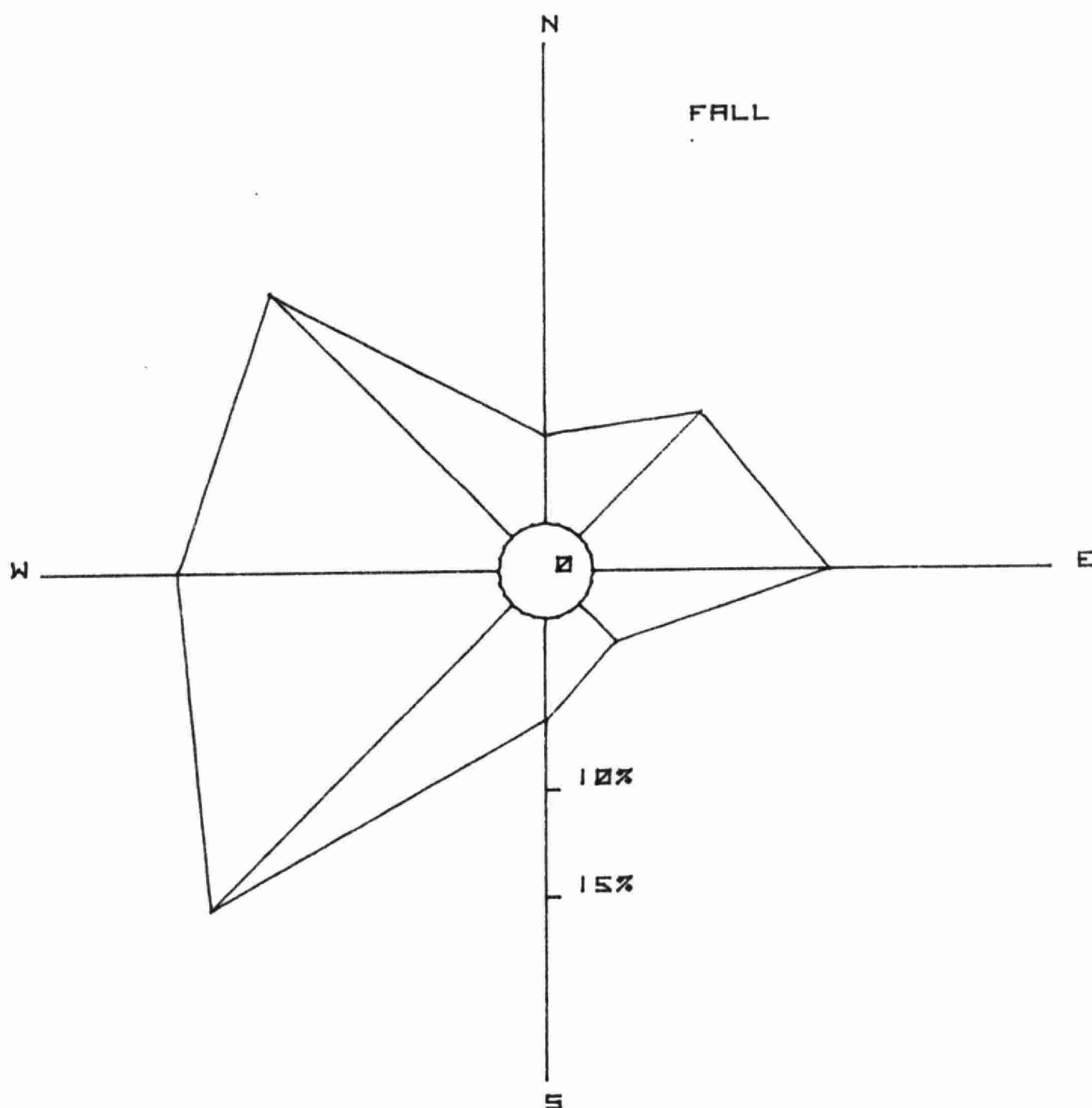


STATION INFORMATION

LOCATED
AT TORONTO ISLAND
AIRPORT
HEIGHT 10.1 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
15	7	16	8	4	14	21	15	0

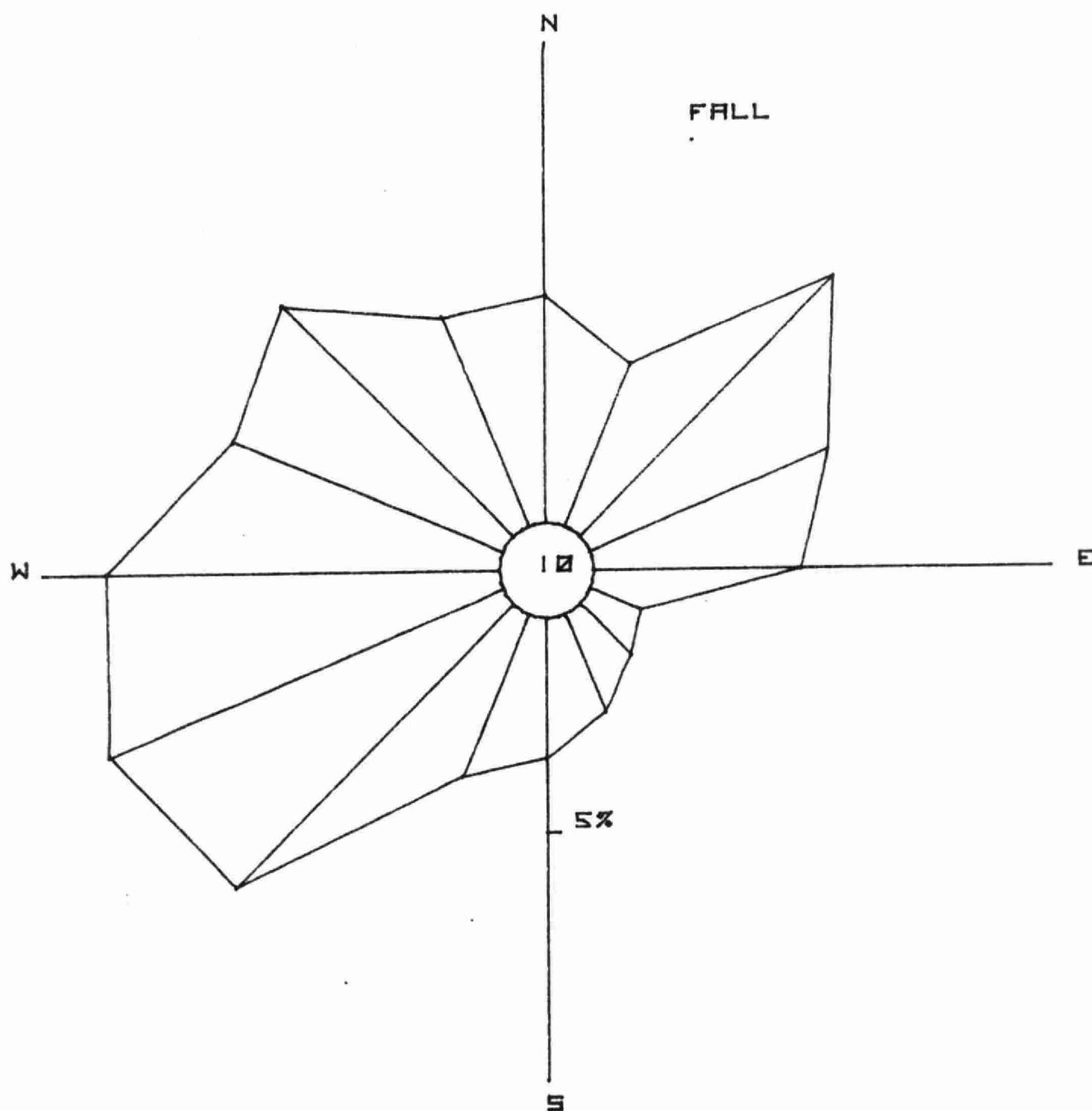


STATION INFORMATION

LOCATED NW END OF ISLAND, ANEMOMETER IS ON ADMIN BLDG, WELL EXPOSED TO N WITH SOME SHELTERING FROM HANGARS NW AND BLDGS TO NE.
HEIGHT 13.2 M.

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
6	10	14	5	7	22	17	18	1



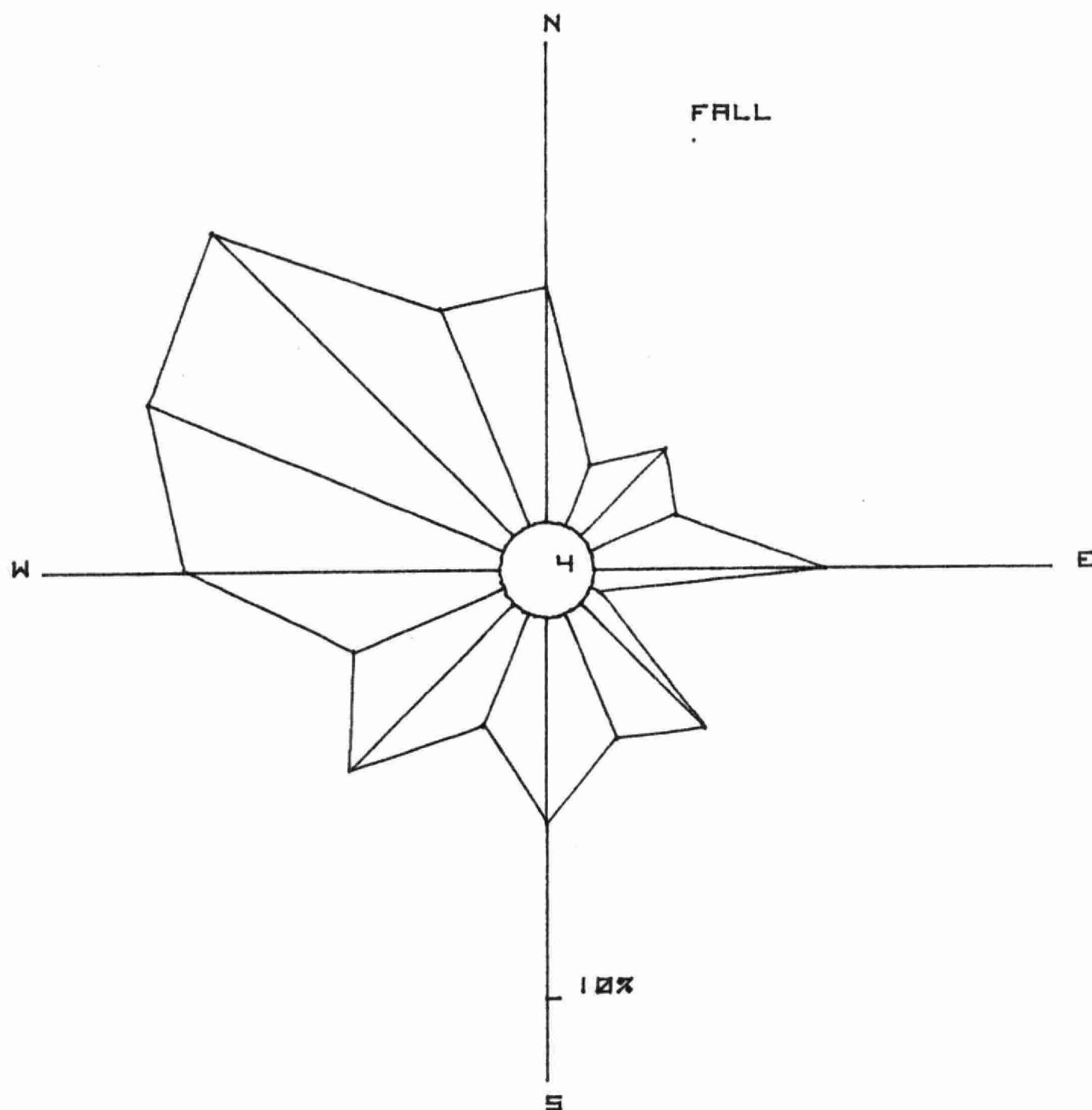
STATION INFORMATION

LOCATED CFB HYW2 2.4 KM E OF TRENTON.
 FLAT TO E ROLLING HILLS TO W-N. BAY
 OF QUINTE AND LAKE ONTARIO TO S.
 HEIGHT 10.2 M.

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
5	4	8	6	5	2	3	3	4	4	9	9	9	7	7	5	10

TROUT LAKE (AES) 1968-1972



STATION INFORMATION

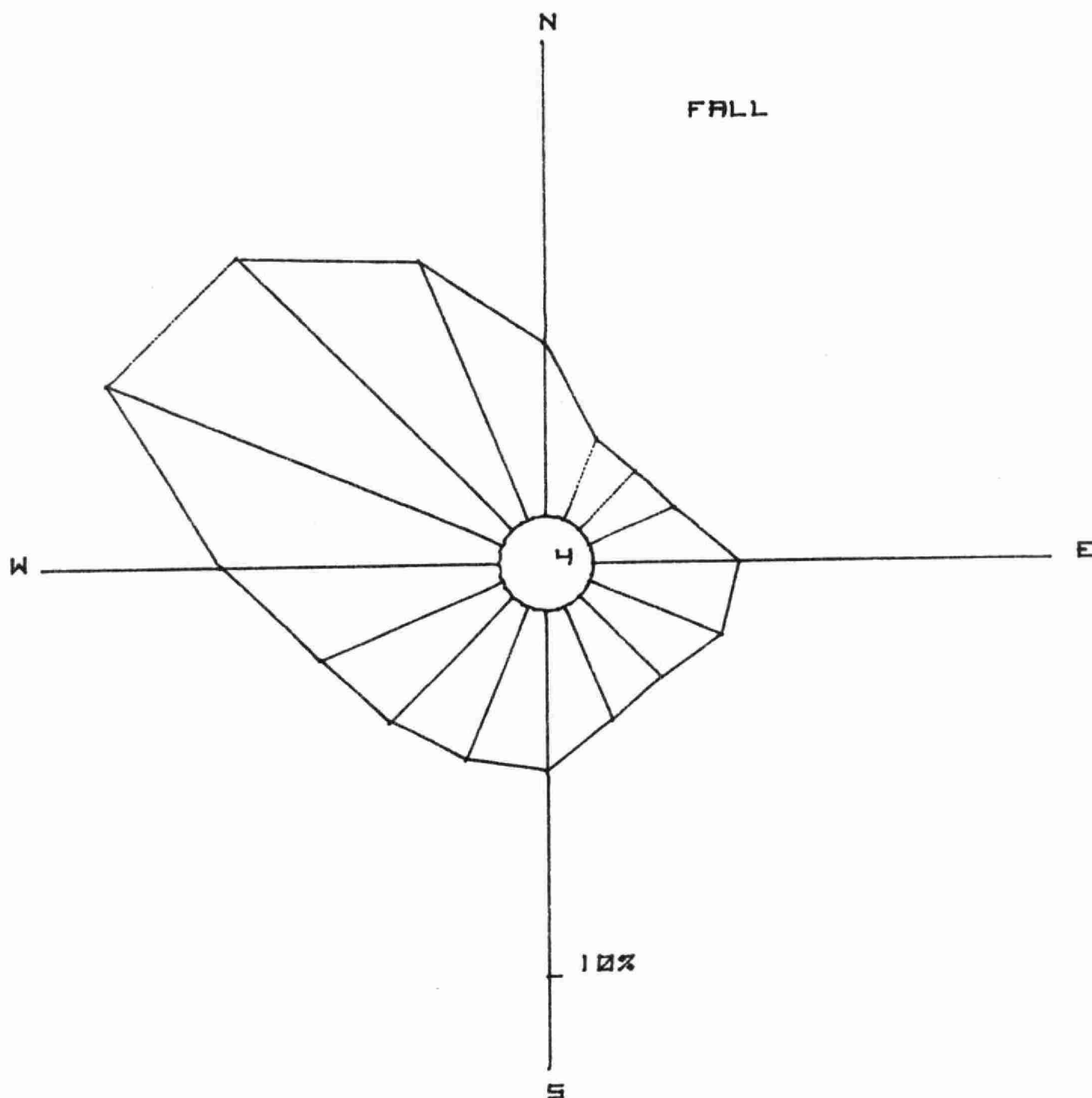
LOCATED ON AN ISLAND NEAR N SHORE OF BIG TROUT LAKE. COUNTRY IS FLAT WITH HEAVY WOODS AND MUSKEG. NUMEROUS LAKES. SITE WELL EXPOSED. HEIGHT 10.2 M.

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
7	3	4	3	7	2	6	4	6	4	7	5	9	10	12	7	4

TROUT LAKE (AES) 1968-1972
(BIASES REMOVED)

93



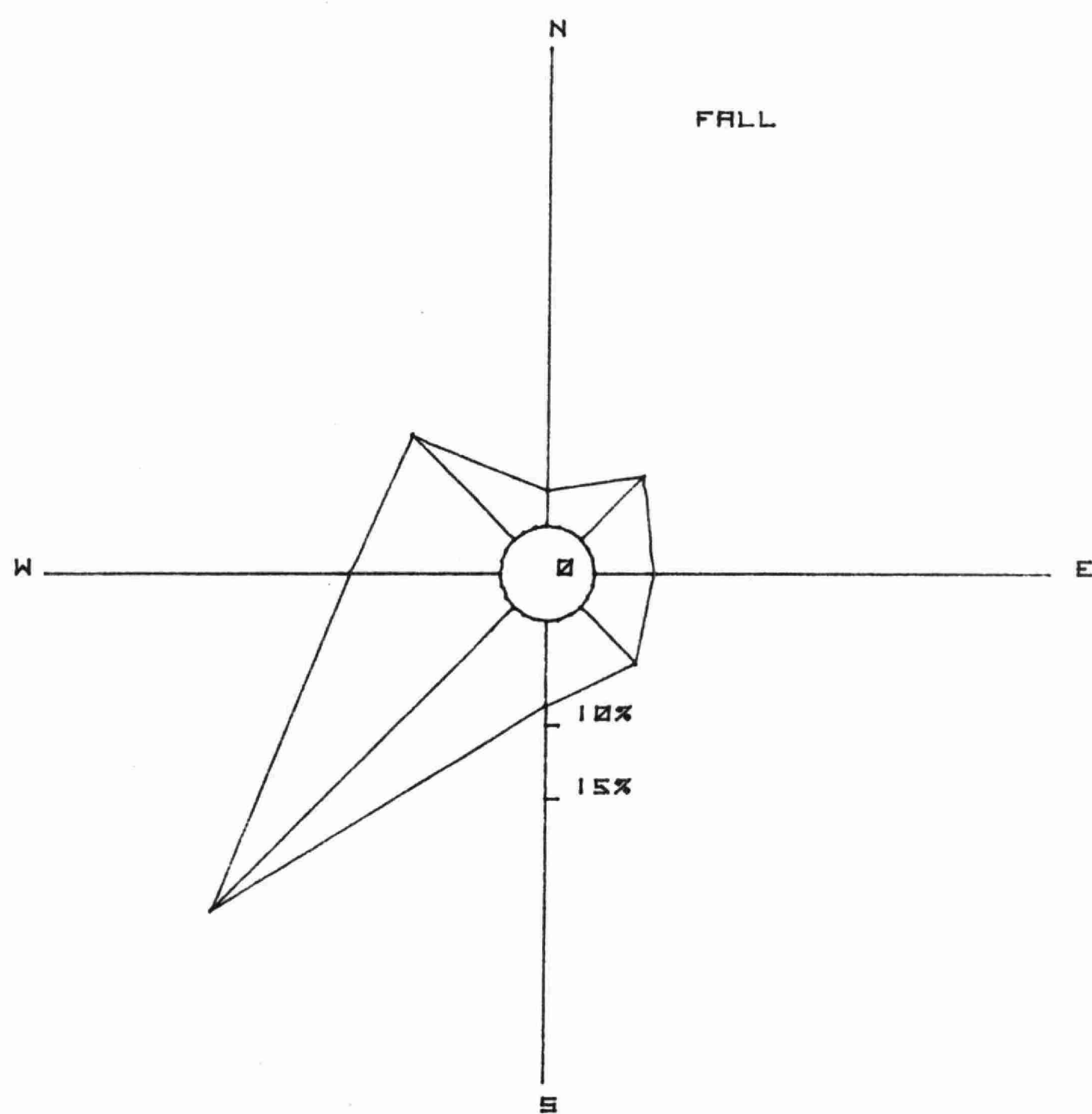
STATION INFORMATION

LOCATED AT EXPERIMENTAL FARM N OF TOWN. AREA FLAT WITH NIAGARA
ESCARPMENT RUNNING WNW-ESE 1.6 KM S. ESCARPMENT HEIGHT 61.5-92.3 M
HEIGHT 10.2 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
6	9	7	9	9	33	14	13	0

VINELAND (AES) 1955-1972



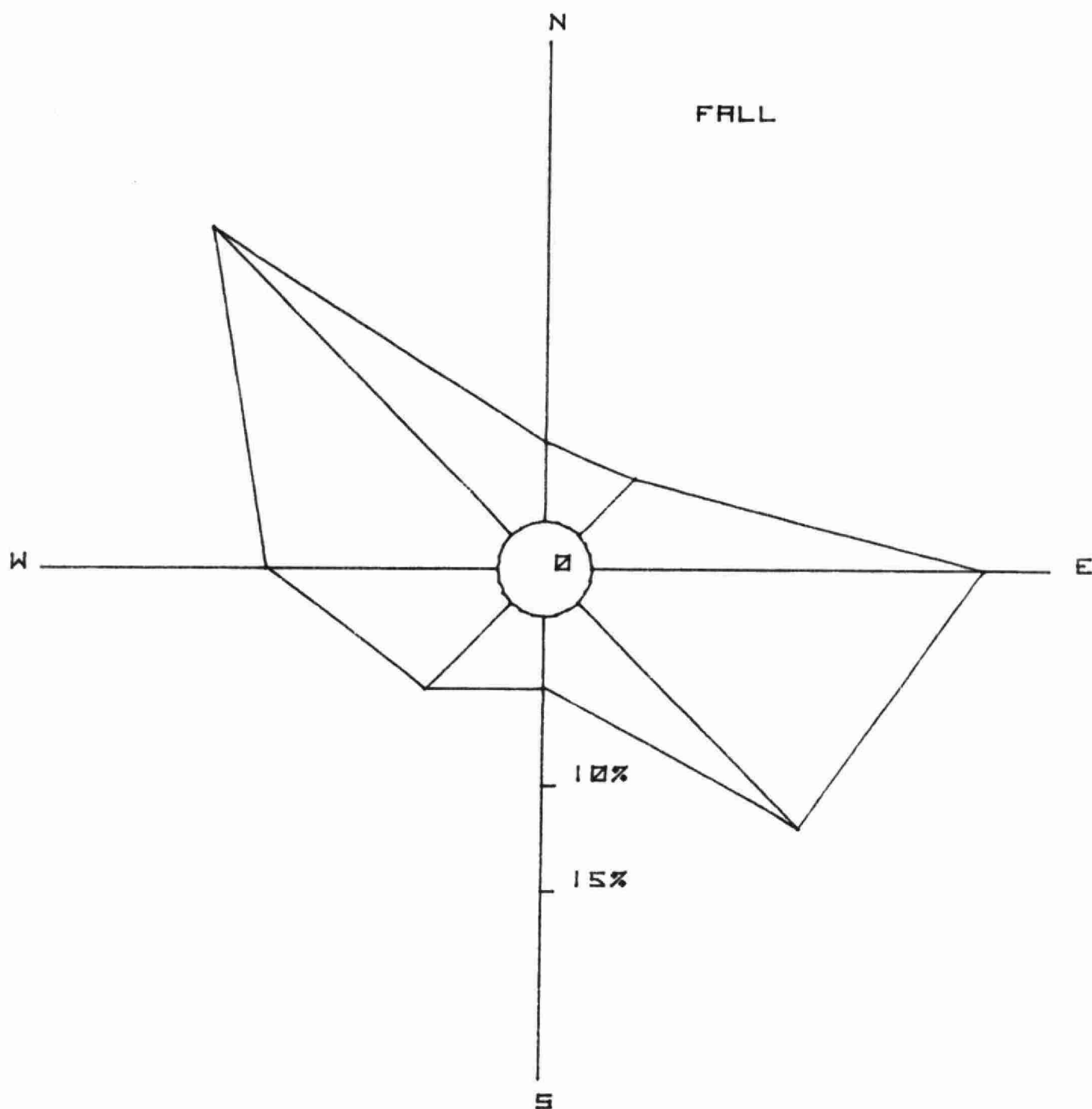
STATION INFORMATION

LOCATED AT EXPERIMENTAL FARM N OF TOWN. AREA FLAT WITH NIAGARA ESCARPMENT RUNNING WNW-ESW 1.6 KM S. ESCARPMENT HEIGHT 61.5-92.3 M HEIGHT 10.2 M.

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
6	9	7	9	9	33	14	13	0

WAWA (ARB-7103B) 1974-1976

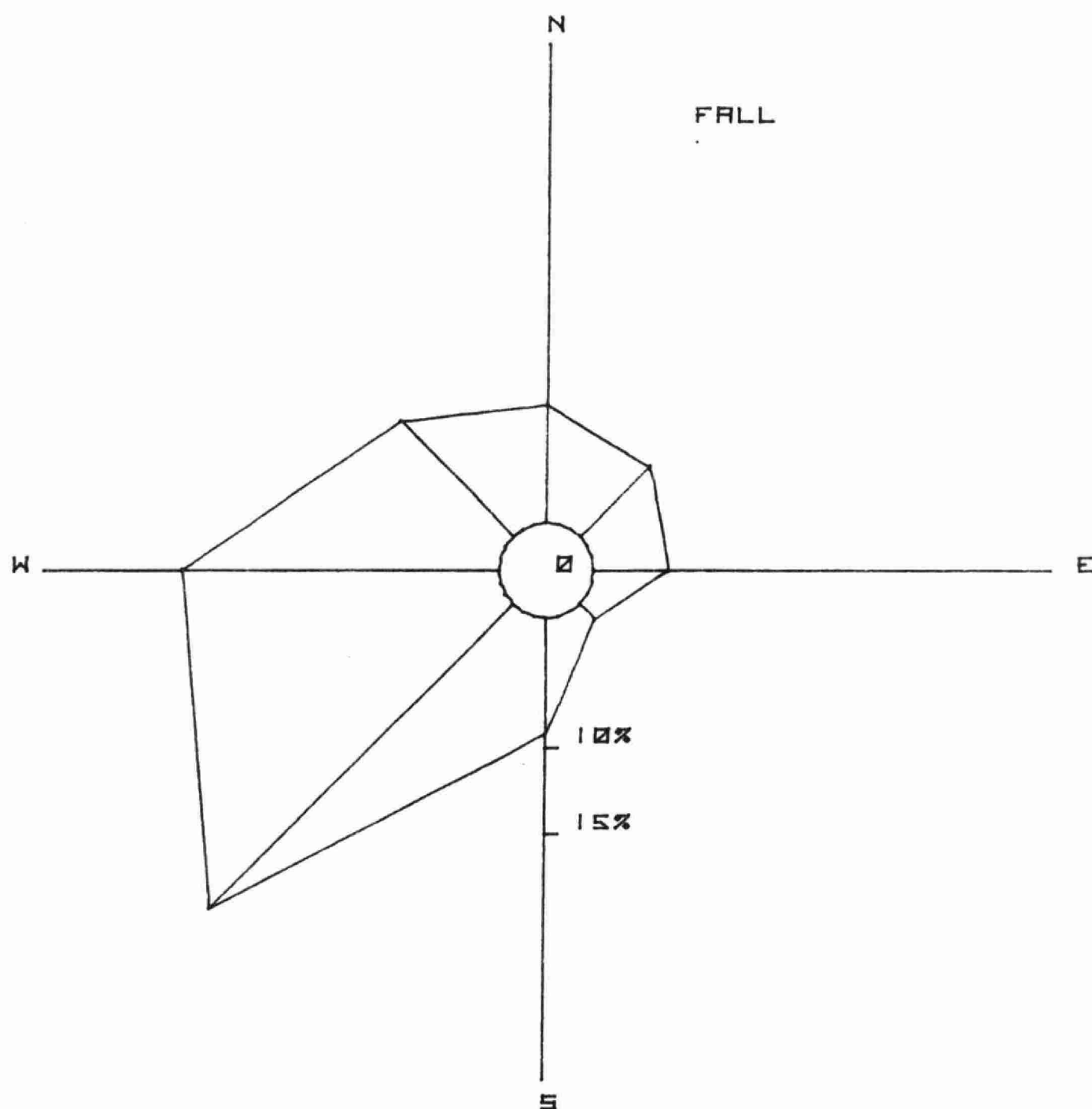


STATION INFORMATION
 LOCATED IN WAWA AT ALGOMA ORE LUCIE PIT.
 HEIGHT 10.1 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
6	6	21	17	6	8	13	23	0

WELLAND (ARB-27027) 1974-1976



STATION INFORMATION

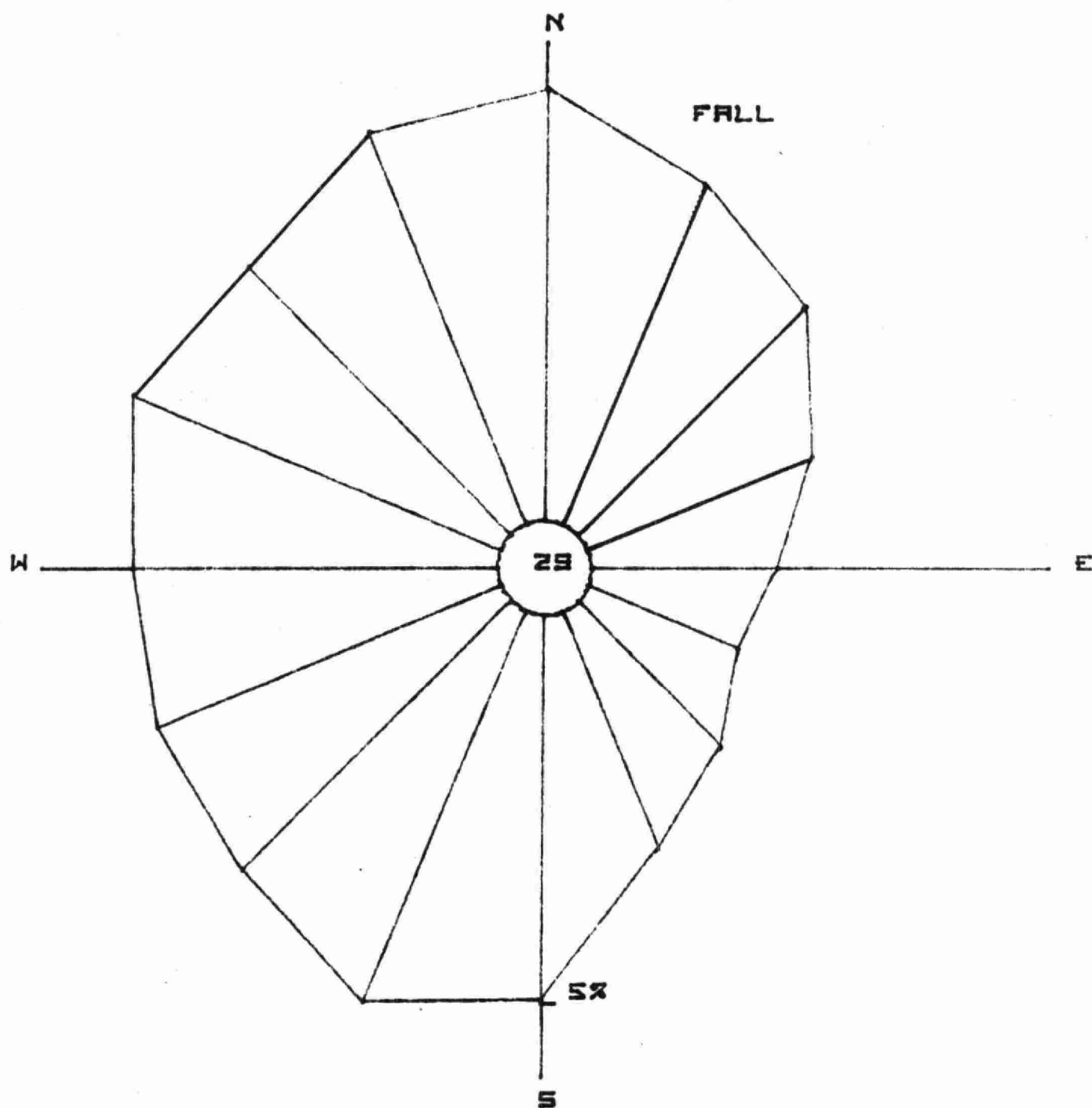
LOCATED ON ROOF OF PUBLIC SCHOOL AT 309 BERTRICE ST.
HEIGHT 10.1 M

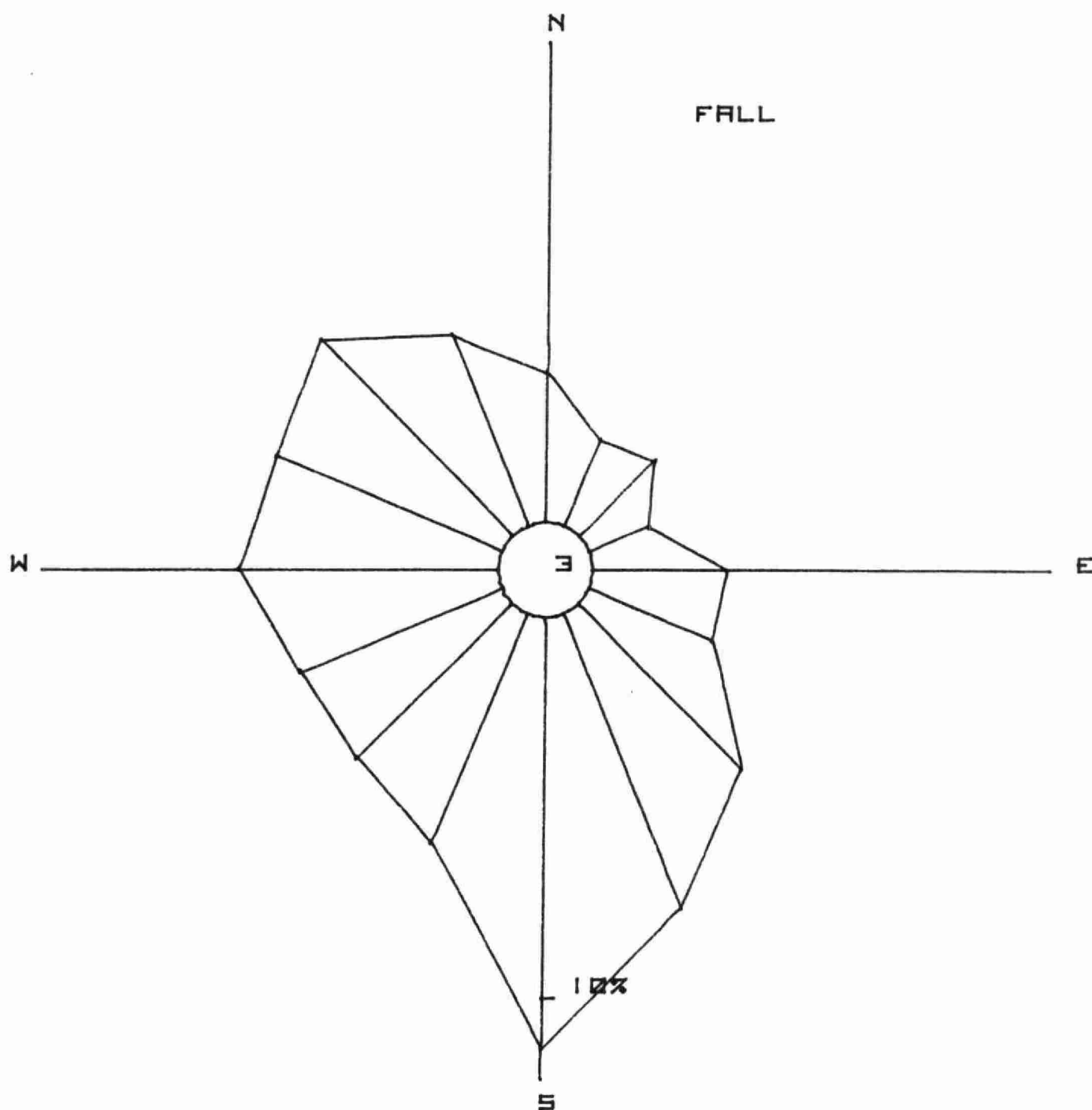
PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
10	9	7	4	9	28	21	12	0

WHITE RIVER (AES) 1955-1972
(BIASES REMOVED)

97



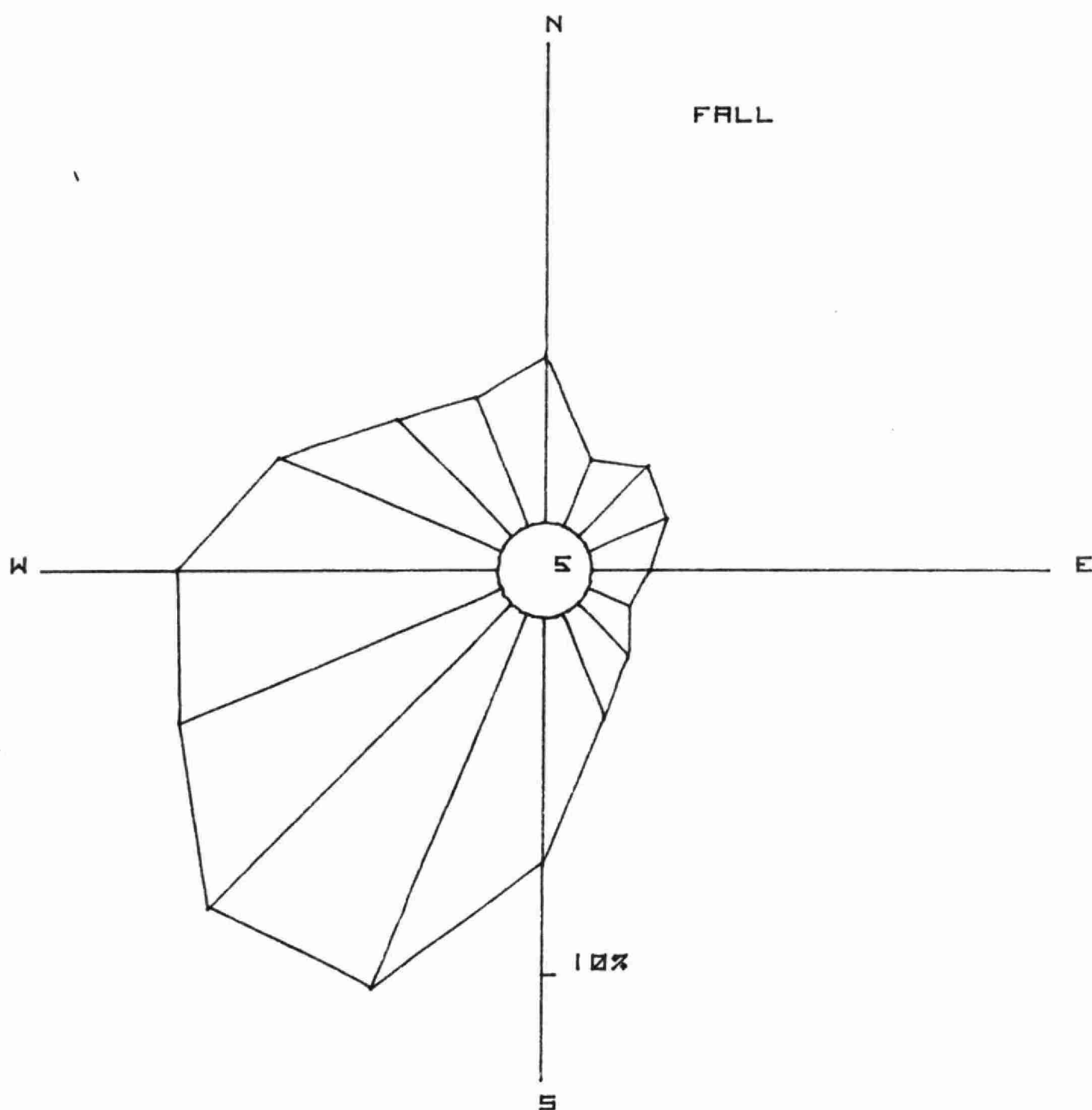


STATION INFORMATION

LOCATED ON SLIGHT RAISED GROUND AT AIRPORT TOWER 153.8 M E OF TERMINAL
BLDG 215.4 M S OF WOODS.
HEIGHT 10.2 M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
5	3	4	3	4	4	7	9	11	7	6	6	7	7	7	6	3



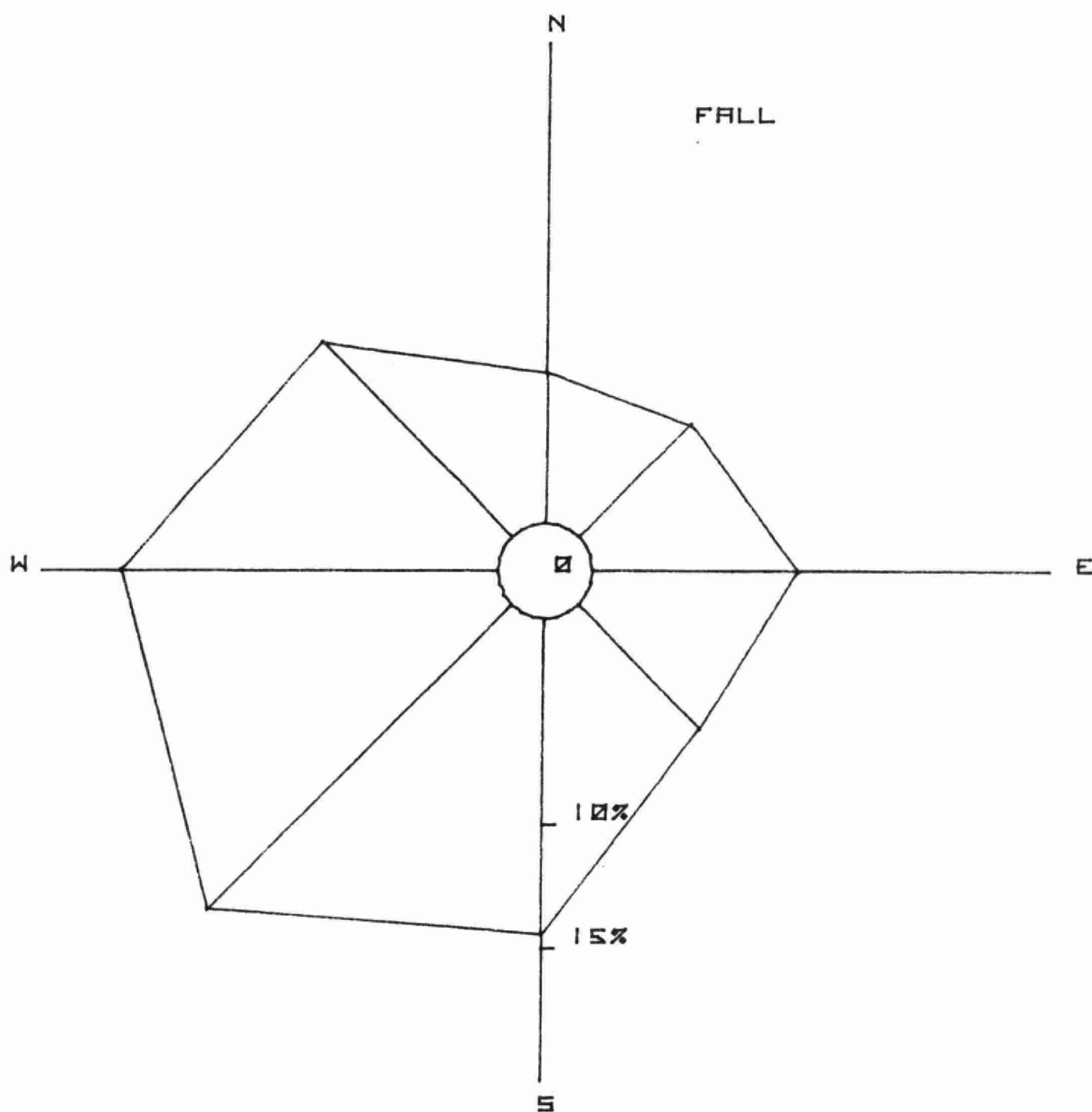
STATION INFORMATION

LOCATED NW CITY. NO OBSTRUCTIONS IN FLAT TREELESS COUNTRY.
HEIGHT 10.2 M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
5	3	4	3	3	2	3	4	8	12	12	10	9	7	5	5	5

WINDSOR (ARB-12032) LEVEL 1 1971-1976 100

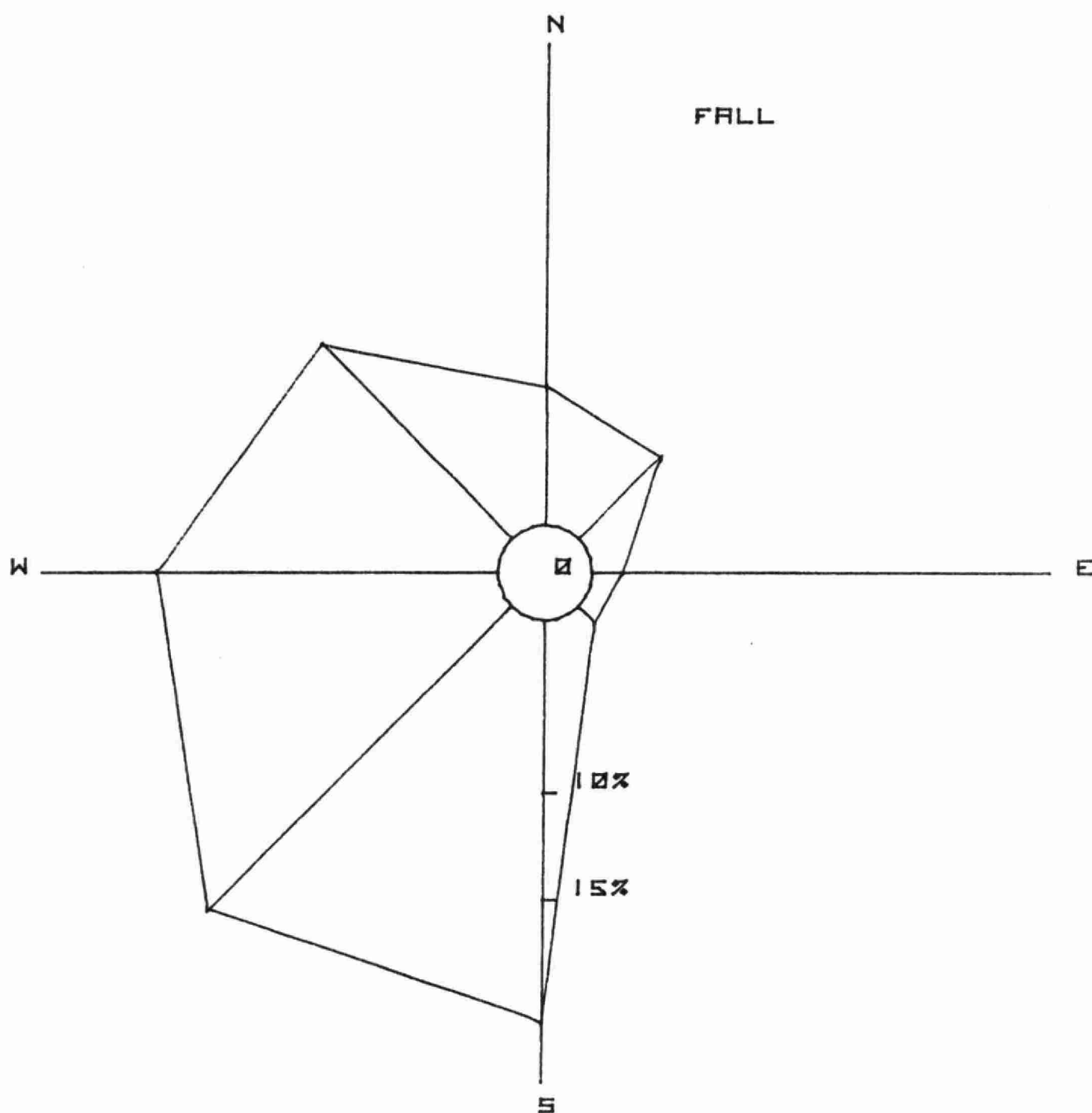


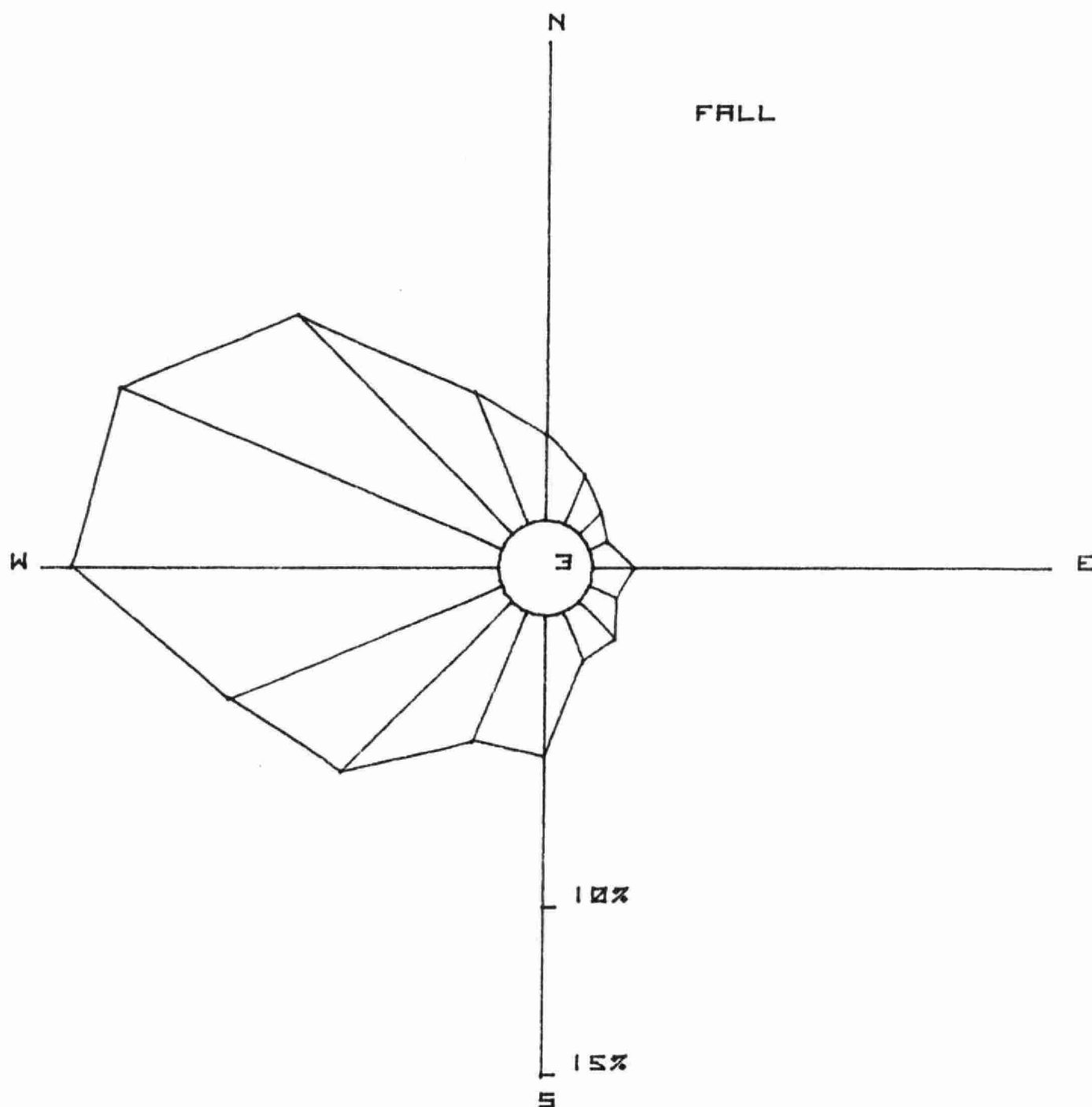
STATION INFORMATION

LOCATED MORTON DOCK AT BEDFORD/OJIBWAY
HEIGHT 6.2 M

PERCENTAGE FREQUENCY

N	NE	E	SE	S	SW	W	NW	CALM
8	9	10	9	15	19	17	13	0





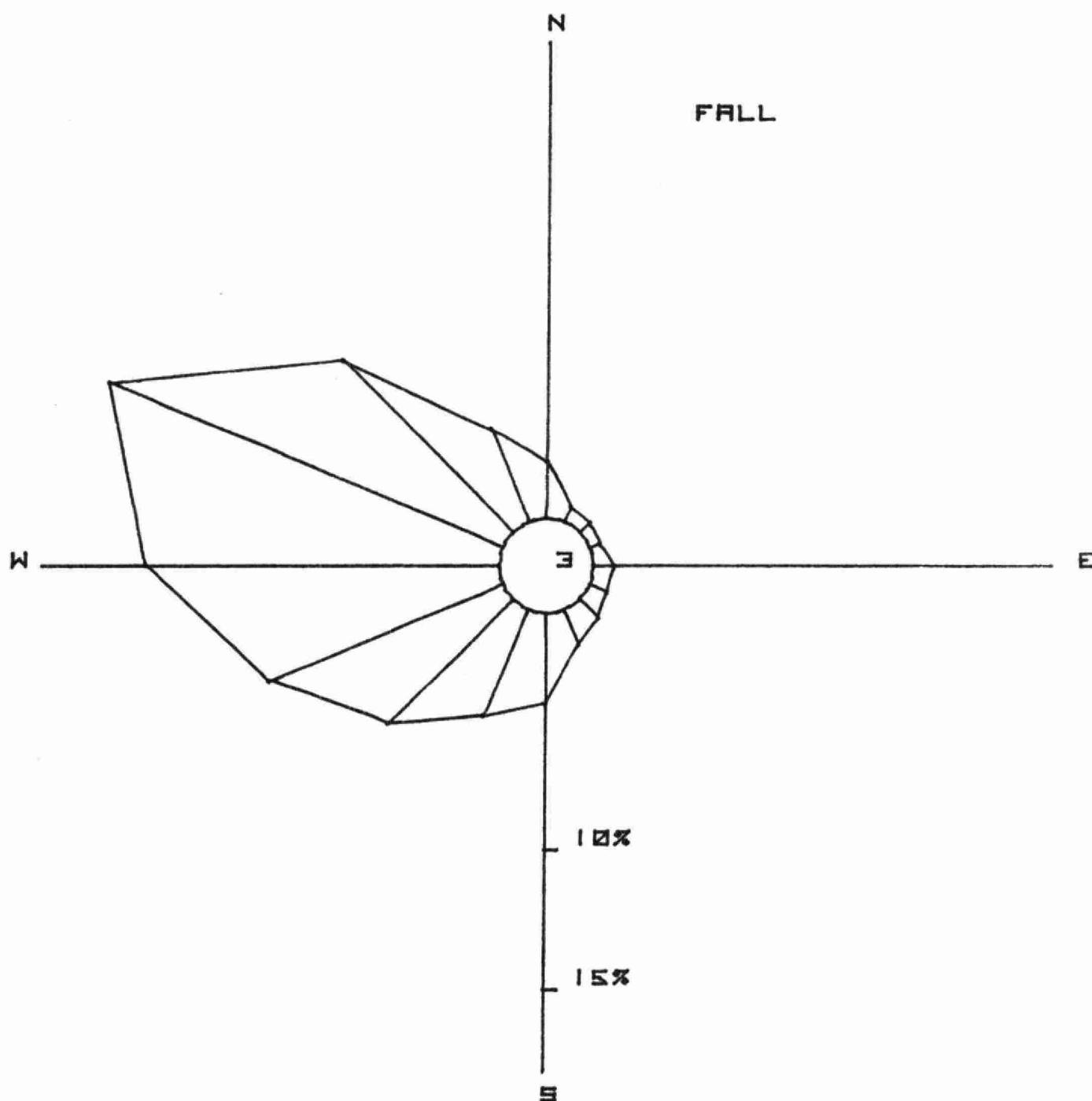
STATION INFORMATION

LOCATED IN GENERALLY FLAT COUNTRY.
MUSKEG WITH LOW TREES LYING APPROX
1.6 KM S TO NW OF STATION.

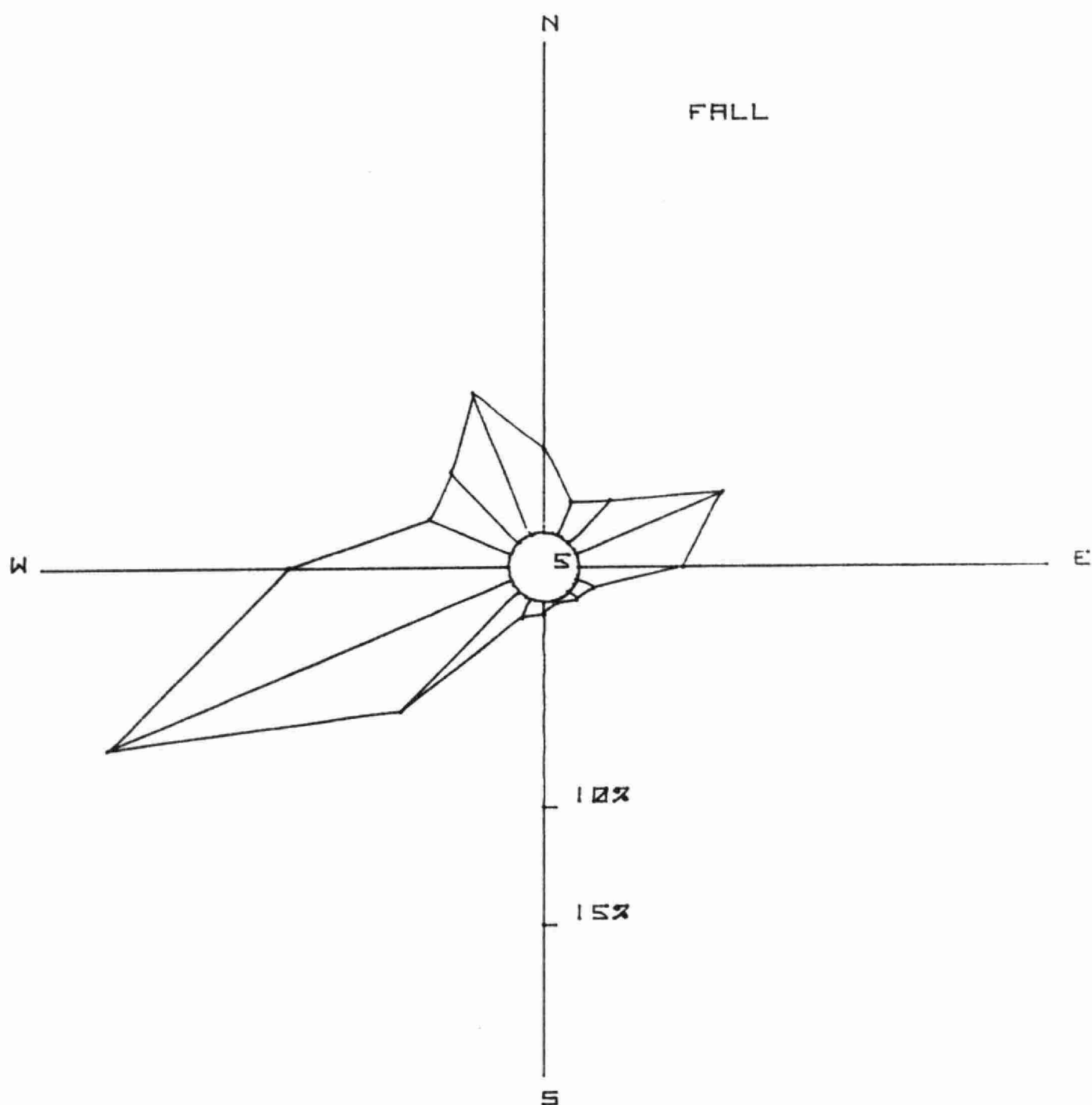
PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	3	2	2	2	2	3	3	6	6	9	10	14	14	11	6	3

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FALL WIND ROSES
FOR
ONTARIO HYDRO STATIONS



STATION INFORMATION

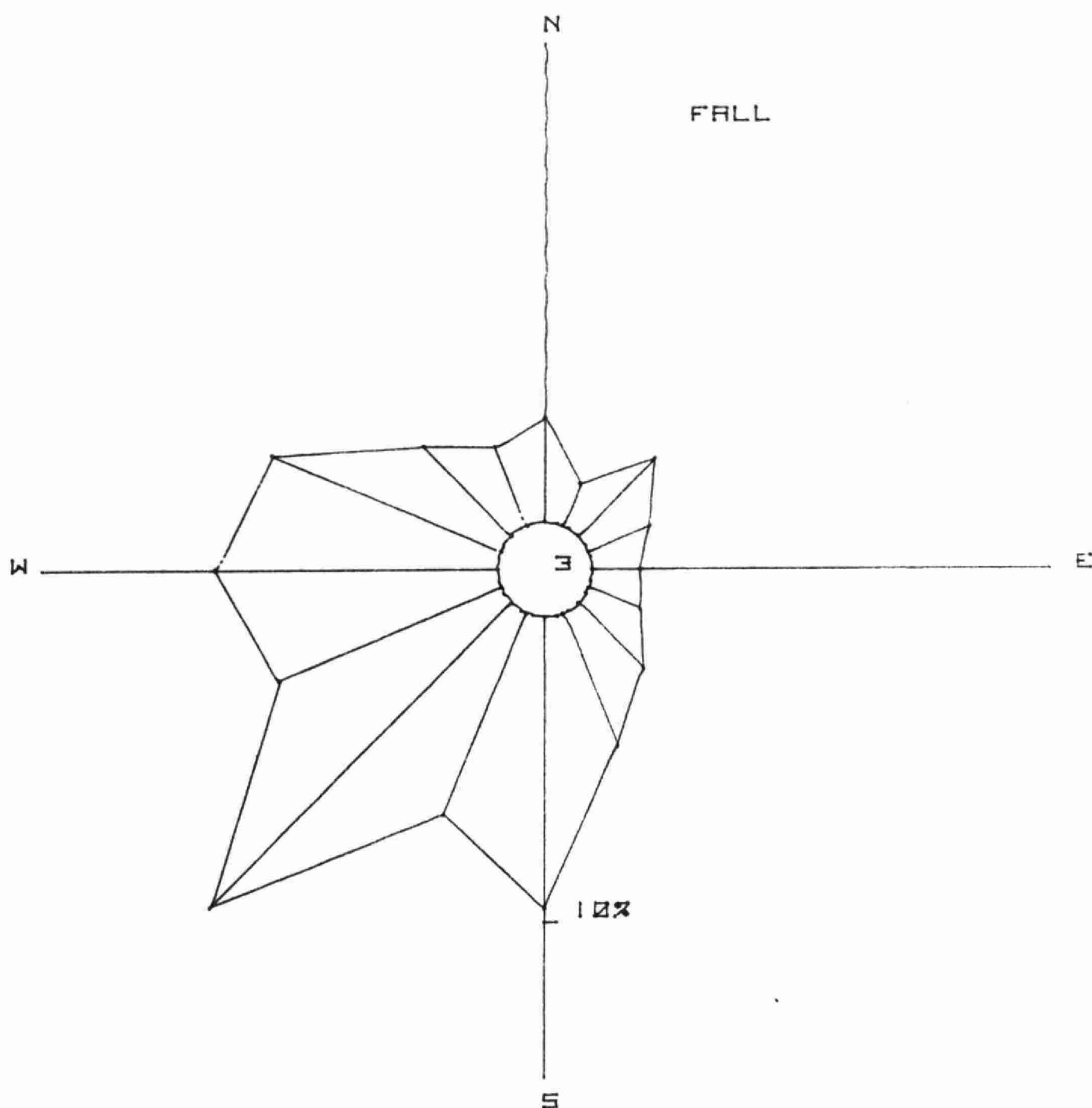
LOCATED

TRANSMISSION TOWER AT BASIN STREET,
JUST NORTH OF THE STATION

HEIGHT 67M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
5	3	4	8	6	2	2	2	2	2	9	20	11	5	6	8	5



STATION INFORMATION

LOCATED

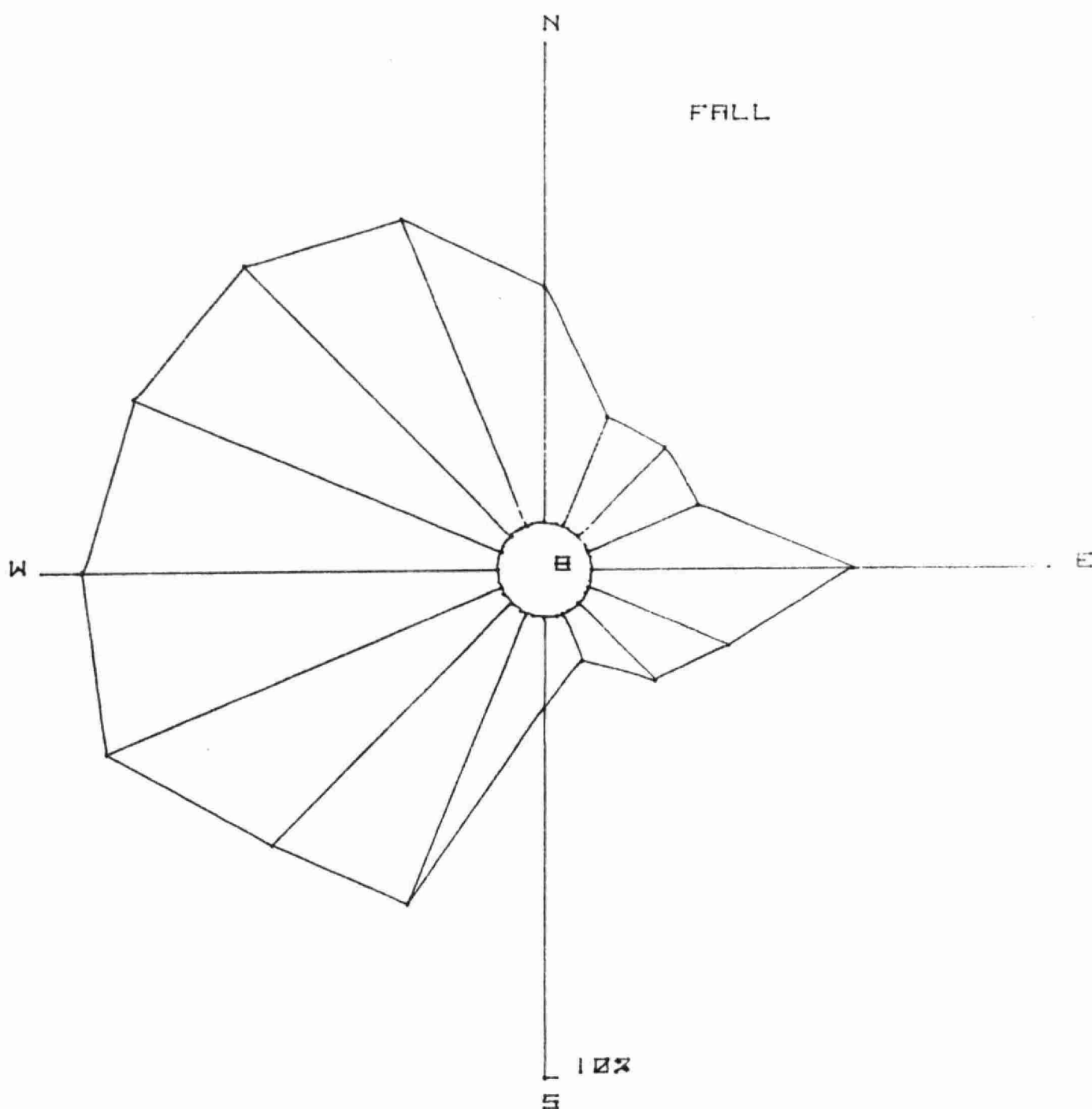
TRANSMISSION-LINE RIVER-CROSSING

TOWER, ON BANK OF DETROIT RIVER

HEIGHT 80 M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	3	5	3	3	3	4	6	10	8	14	8	10	9	5	3	2



STATION INFORMATION

LOCATED

AT THE HAIG JUNCTION ON

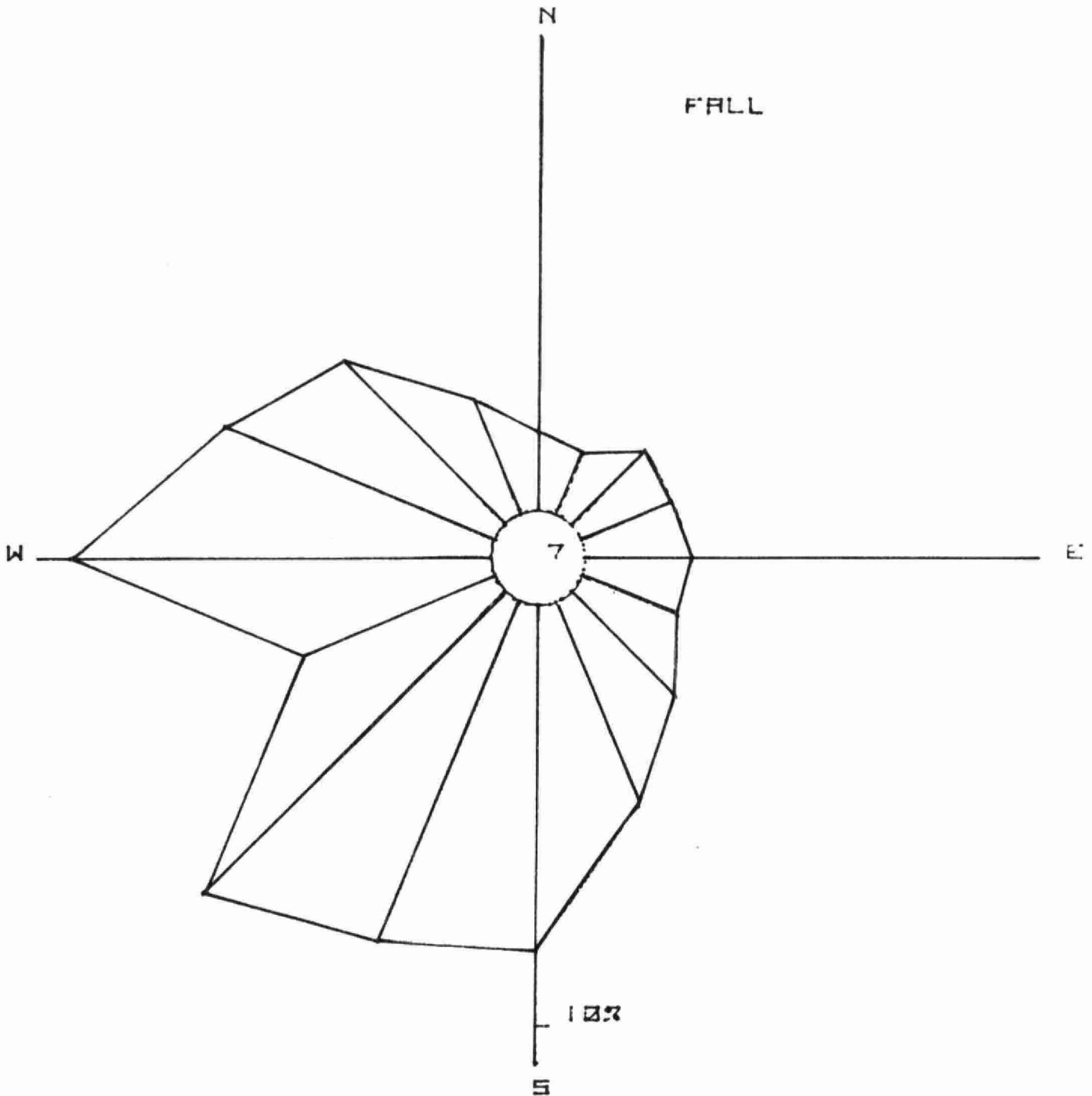
HAIG BLVD AT QEW

HEIGHT 43M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
6	3	3	3	6	4	3	2	3	7	8	10	9	9	9	8	7

LAMBTON G.S. 1973-1978 (AUG)



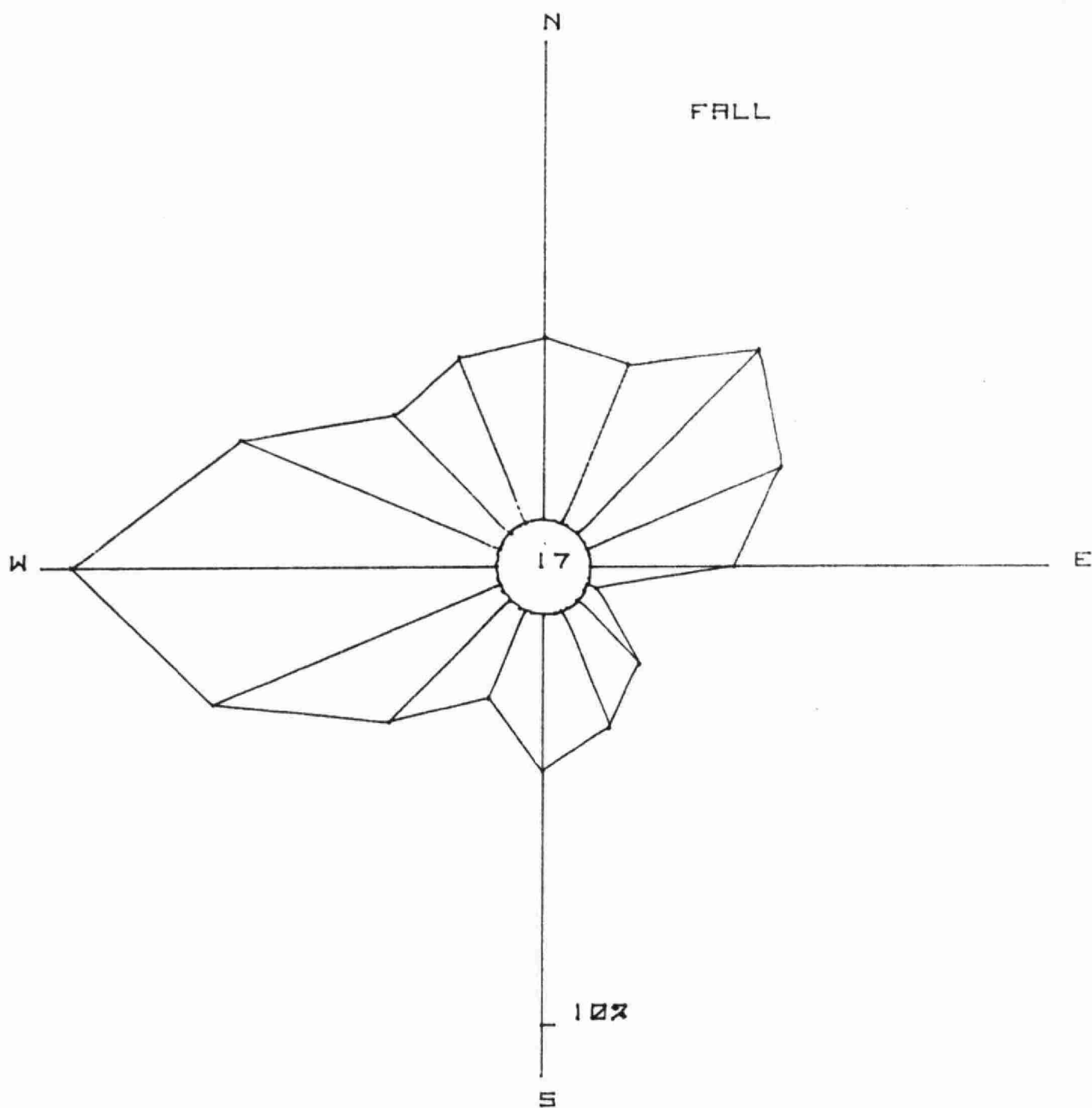
STATION INFORMATION

LOCATED

ON THE ONTARIO TRANSMISSION TOWER
IMMEDIATELY SOUTH OF LAMBTON G. S.
HEIGHT 76M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
3	7	3	3	3	3	4	6	9	9	10	6	10	7	6	4	7



STATION INFORMATION

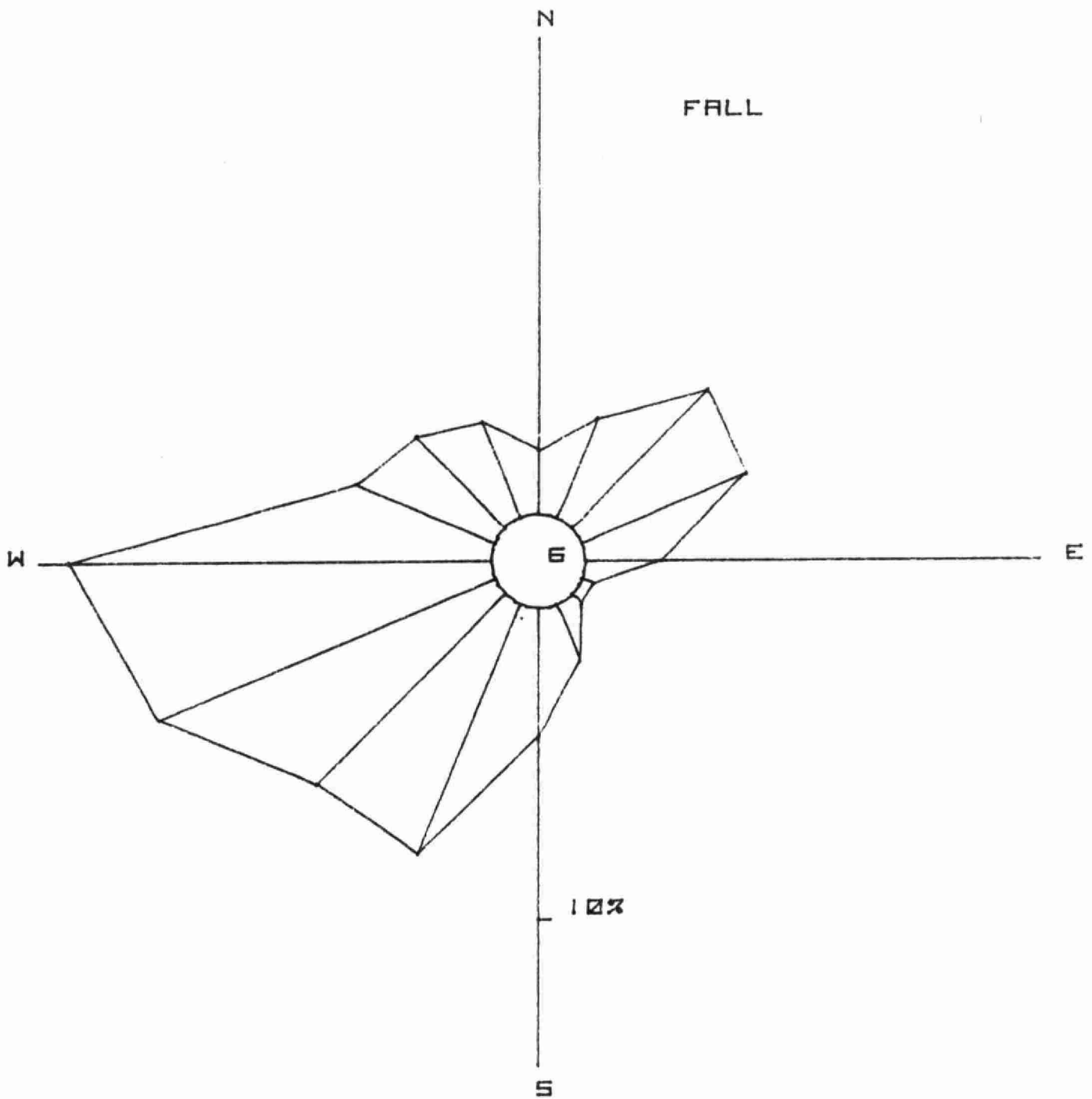
LOCATED

TRANSMISSION TOWER RIGHT OF WAY SOUTH
FREDERICKSBURGH TOWNSHIP TOUNLINE
HEIGHT 55M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
5	5	7	6	4	1	3	4	4	3	5	8	11	7	5	5	17

NANTICKE G.S. (HYDRO) 1973-1978 (AUG)



STATION INFORMATION

LOCATED

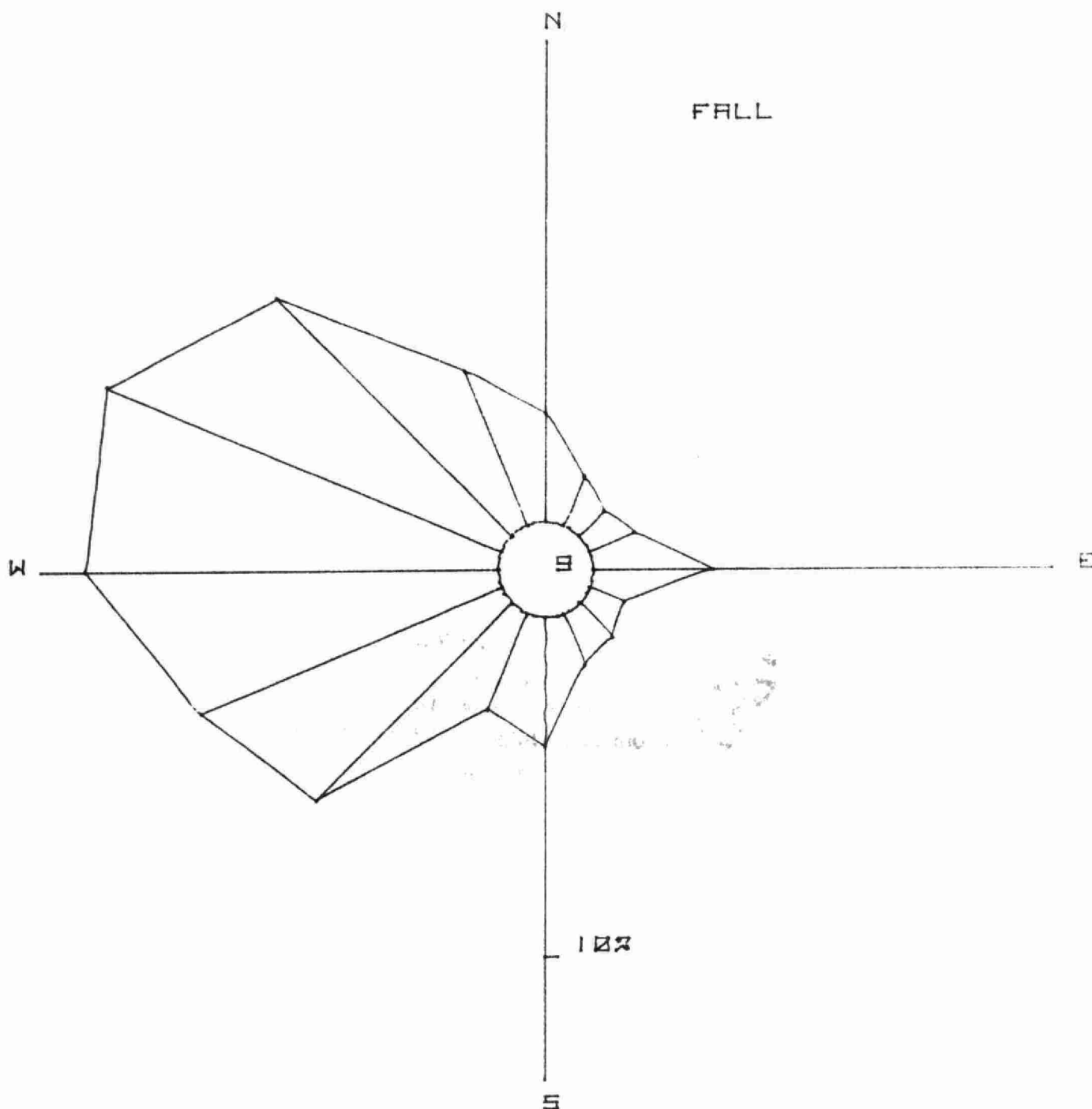
ON THE JARVIS MET TOWER

SOUTH SIDE CRB E OF NANTICKE

HEIGHT 85M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
3	4	7	6	4	2	2	3	5	9	9	12	13	6	5	4	6



STATION INFORMATION

LOCATED

AT THE THUNDER BAY STATION

GRID REF 0334875-5358750

HEIGHT 62M

PERCENTAGE FREQUENCY

N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	CALM
4	3	2	2	4	2	2	3	5	4	9	10	12	13	10	6	9



(12111)

MOE/SEA/ANBB

MOE/SEA/ANBB

Kurtz, J.

Seasonal wind roses

fo Ontario spring

anbb

c.1

a aa